A WAY TO GET WEALTH:

CONTAINING SIX PRINCIPAL *Vocations or Callings, in which euery good* Husband or Houſe-wife may lawfully imploy themſelues.

AS

I. *The natures ordering, curing, breeding, choiſe uſe, and feeding of all ſorts of Cattle and Fowle, fit for the ſeruice of Man: As alſo the riding and dieting of Horſes, either for Warre or Pleaſure.*

II. *The knowledge, vſe, and laudable practiſe of all the recreations meet for a Gentleman.*

III. *The office of Houſewife, in Phyſicke, Surgery, extraction of Oyles, Banquets, Cookery, ordering of Feaſts, preſeruing of Wine, conceited ſecrets, Diſtillations, Perfumes, ordering of Wooll, Hempe, Flaxe, Dying, vſe of Dayries, Malting, Brewing, Baking, and the profit of Oates.*

IV. *The enrichment of the Weald in Kent.*

V. *The husbanding, and enriching of all ſorts of barraine grounds, making them equall with the moſt fruitfull, with the preſeruation of Swine, and a computation of Men and Cattels labours, &c.*

VI. *The making of Orchards, Planting, and Grafting, the office of Gardening, and the ornaments, with the beſt husbanding of Bees.*

The firſt fiue Books gathered by *G. M.* The laſt by Maſter *W. L.* for the benefit of Great Britaine.

The fift time corrected and augmented by the Authour.

Printed at *London* for *Iohn Harriſon*, and are to be ſold at the golden Vnicorne in

Cheape and Good

HVSBANDRY

For the well-Ordering of all Beasts, and Fowles, and for the generall Cure of their Diseases.

Contayning the Natures, Breeding, Choise, Vse, Feeding, and Curing of the diseases of all manner of Cattell, as *Horse, Oxe, Cow, Sheepe, Goates, Swine*, and tame *Conies*,

Shewing further, the whole Art of Riding great-Horses, with the breaking and ordering of them: and the dieting of the Running, Hunting, and Ambling Horse, and the manner how to vse them in their trauile.

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The fift Edition.

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TO THE RIGHT HONOVRABLE, AND

most truely ennobled with all inward and outward Vertues, RICHARD SACKVILE, Baron of *Buckhurſt*, and Earle of *Dorſet*, &c.

ALthough the monſtrous ſhapes of Bookes (Right Honourable and beſt ennobled Lord) haue with their diſguiſed and vnprofitable vizard-like faces, halfe ſcared euen Vertue her ſelfe from that ancient defence and patronage, (which in former ages) moſt Nobly ſhe imployed, to preſerue them from Enuy: yet ſo much I know the largeneſſe of your worthy breaſt is endued with wiſedome, courage, and bounty, that notwithſtanding the vanities of our ignorant Writers, you will be pleaſed out of

your Noble Spirit, fauourably to behold whatsoeuer shall bring a publicke good to our Countrey; at which end I haue onely aymed in this small Booke. In which hauing runne farre from the way or tract of other Writers in this nature, yet I doubt not but your Honour shall finde my path both more easie, more certaine, and more safe then any; nay, by much, farre lesse dificult or aangerous to walke in. I must confesse, something in this nature I haue formerly published, as namely of the Horse onely with whose nature and vse I haue beene exercised; and acquainted from my Child-hood: and I hope, without boast, need not yeeld to any in this Kingdome. Yet in this worke, I hope, your Lord-ship, and all other Princely maintainers of that worthy and seruiceable beast, shall finde I haue found out, and herein explained a nearer and more easie course for his preseruation and health, then hath hitherto beene found or practised by any, but my selfe onely. Whatsoeuer it is, in all humbleneſſe I offer it as a sacrifice of my loue and seruice to your Honour, and will euer whilst I haue breath to be,

be your Honours

in all dutifull seruice,

G. M.

TO THE COVRTEOVS READER.

THere is no Artiſt or man of Induſtry (Curteous and Gentle Reader) which mixeth iudgment with his Experience, but findeth in the trauell of his labours, better and nearer courſes to make perfit the beauty of his worke, then were at firſt preſented to the eye of his knowledge: for the mind being pre-occupyed and buſied with a vertuous ſearch, is euer ready to catch hold of whatſoeuer can adorne or illuſtrate the excellency of the thing in which he is imployed: and hence it hapneth that my ſelfe hauing ſeriouſly beſtowed many yeeres to finde out the truth of theſe knowledges, of which I haue intreated in this Booke; haue now found out the infallible way of curing all diſeaſes in Cattell, which is by many degrees more certaine, more eaſie, leſſe difficult, and without all manner of coſt and extraordinary charges, then euer hath beene publiſhed by any home-borne, or forraine practiſer. Wherein (friendly Reader) thou ſhalt finde that my whole drift is to helpe the needfull in his moſt want and extremitie. For hauing many times in my iourneying ſeene poore and rich mens Cattell fall ſodainly ſicke, ſome trauelling by the way, ſome drawing in the Plough or draught, and ſome

vpon other imployments; I haue alſo beheld thoſe Cattell or Horſe dye ere they could be brought either to Smith, or other place where they might receiue cure; nay, if with much paines they haue been brought to the place of cure, yet haue I ſeene Smiths ſo vnprouided of Pothecary ſimples, that for want of matter of ſixe-pence, a beaſt hath dyed worth many Angels. To preuent this, I haue found out theſe certaine and approued Cures; wherein if euery good Horſe-louer, or Husband-man, will but acquaint his knowledge with a few hearbs and common weeds, he ſhall be ſure in euery Field, Paſture, Meadow, or Land-furrow; nay, almoſt by euery high-way ſide or blinde ditch, to finde that which ſhall preſerue and keepe his Horſe from all ſodaine extremities. If thou ſhalt finde benefit, thinke mine houres not ill waſted; if thou ſhalt not haue occaſion to approue them, yet giue them thy gentle paſſage to others, and thinke me as I am,

Thy friend.

G. M.

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FINIS.

A SHORT TABLE

expounding all the hard words *in this Booke.*

A

Auripigmentum, or *Orpiment*, is a yellow hard ſubſtance to be bought at the Pothecaries.

Ariſtolochia longa, otherwiſe called red *Madder* is an herbe growing almoſt in euery field.

Ariſtolochia-rotunda, is the hearbe called *Galingale*.

Agrimonie, or *Egrimonie*, is an vſuall and knowne hearbe.

Ameos or *Comin-royall*, is an hearbe of ſome called *Bulwort*, *Biſhops-weed*, or *Hearb-william*.

Anyſe, is that herbe which beares *Anyſe ſeeds*.

Auer, of ſome called *Dill*, is an hearbe like *Fenell*, onely the ſeeds are broad like *Orenge* ſeeds.

Agnus-caſtus, of ſome called *Tuteſaine*, is an hearbe with reddiſh leaues, and ſinewie like *Plantaine*.

Ægyptiacum, is a reddiſh *vnguent* to be bought at the Pothecaries, and is ſoueraigne for *Fiſtulaes*.

Aſſafœtida, a ſtinking ſtrong gumme to be bought at the Pothecaries.

Adraces, or *Adarces*, is that *Salt* which is ingendred on the ſalt Marſhes by the violence of the Sunnes heate after the tyde is gone away.

Aſterion, is an herbe growing amongſt ſtones as one

walles, or ſuch like, it appeareth beſt by night, it hath yellow flowers like *Foxegloues*, and the leaues are round and blewiſh.

Aloes, is a bitter gumme to be bought at Pothecaries.

B

Betin, or *Beets*, is an hearbe with long broad leaues indented, and growes in hedge-rowes.

Bolarmoniake, is a red hard earthy ſubſtance, to be bought at the Pothecaries, and is of a cold and binding nature.

Broomewort is an hearb with browne coloured leaues, and beareth a blew flower, and moſt commonly growes in woods.

C

Creſſes are of two kindes, *water-Creſſes*, and *land-Creſſes*. they haue broad ſmooth leaues, and the firſt growes in moiſt places, the latter in Gardens, or by high wayes.

Comin, ſee *Ameos*.

Carthamus is an hearbe in taſte like *Saffron*, and is called *baſtard-Saffron*, or *mocke-Saffron*.

Calamint is an ordinary hearbe, and groweth by ditches ſides by high-wayes, and ſometimes in Gardens.

Coleander is an hearbe which beareth a round little ſeed.

Chiues are a ſmall round hearbe growing in Gardens, like little young *Onions* or *Scallions* not aboue a weeke old.

D

Dapente, a ſoueraigne powder made of fiue equall ſimples, as *Bay-berries*, *Iuory*, *Ariſtolochia-rotunda*, *Myrrhe*,

Myrrhe, and *Gentiana*, may be bought of the Pothecarie.

Dettony is an hearbe called *Pepper-wort*, or *horse-Radish*, and groweth in many open fields.

Dragons is an hearbe common in euery Garden.

E

Elecampana is an hearbe of some called *Horse-helme*, and growes almost in euery field, and euery Garden.

Eyebright is an hearbe growing euery meadow.

F

Fennegreeke is an hearbe which hath a long slender trayling stalke, hollow within, and sowne in Gardens but easiest to be had at the Pothecaries.

Ferne Osmund is an hearbe, of some called *Waterferne*, hath a tryangular stalke, and is like *Polipody*; and it growes in bogs, and hollow grounds.

G

Galingale, see *Aristoloebia-rotunda*.

H

Horse-mint is an hearbe that growes by waters sides, and is called *Water-mint*, or *Brooke-mint*.

Horse helme, see *Elecampana*.

House-leeke, is a weed which growes on the tops of houses that are thatcht, and are like vnto a small *Hartichocke*.

Hearbe-Robert, hath leaues like *Hearbe-Bennet*, and small flowers of a purple colour, and growes in most common fields and Gardens.

I

Ivory, is the shauings of the *Elephants* tooth, or the old *Harts*, or *Stags* horne, being the smooth white thereof.

K

Knot-grasse, is a long running weed, with little round smooth leaues, and the stalke very knotty and rough, winding and wreathing one seame into another very confusedly, and groweth for the most part in very moyst places.

L

Lettice is a common sallet-hearbe in euery Garden.

Lollium, is that weed which we call *Cockell*, and groweth amongst the corne in euery field.

Liuerwort, is a common hearbe in euery Garden.

M

Mayth, is a weed that growes amongst corne, and is called of some *Hogs-Fennell*.

Myrrhe, is a gumme to be bought at the Pothecaries.

Mandragg, is an hearbe which growes in Gardens, and beareth certaine yellow Apples, from whence the Pothecaries draw a soueraigne oyle for broken bones.

N

Nepe, see *Calamint*.

O

Origanum, is an hearbe called wilde-*Marioram*, and growes both in open fields, or in low copses.

Orifice, is the mouth, hole, or open passage of any wound or vlcer.

Opoponax, a drug usuall to be bought at the Pothecaries.

P

Pitch of Burgundy, is *Rossen*, and the blacker the better.

Plantaine, is a flat leafe and sinewie, growing close to

to the ground, and is called *Whay-bred* leafe.

Paliall-royall is an hearbe that groweth both in fields and gardens, and is beſt when it flowreth.

Patch-greaſe is that tallow which is gotten from the boyling of Shoemakers ſhreads.

Q

Quinquefolio, of ſome called *Cinquefoyle*, is that hearbe which is called *Fiue-leaued* graſſe.

R

Red Oaker is a hard red ſtone which we call *Raddle*, *Orell*, *Marking-ſtone*.

S

Sellondine, or *Tetterwort* is a weede growing in the bottome of hedges, which being broke, a yealow iuyce will drop and runne out of it.

Shirwit is an hearbe with many ſmall leaues, and growes moſt in Gardens.

Stubwort is an hearbe which growes in woody places, and is called *Wood Sorrell*.

Sanguis Draconis is a hard red gumme to be bought at the Pothecaries.

Stonecrop is a greene weede growing on the tops of walles.

Sparma-Cæta is the ſeed of the *Whale*, excellent for inward bruiſes, and to be bought at the Pothecaries.

Salarmoniake is a drug to be bought at the Pothecaries.

T

Tuſſilaginis is that weed which we call *Colts-foot*.

Treapharmicon a compoſition made of three ſimples, and to be bought at the Pothecaries.

Turmericke is a yealow ſimple, of ſtrong ſauour, to be bough at the Pothecaries.

Verdi-

V

VErdi-greaſe is a greene fatty gumme drawne from *Copper*, and is to be bought at the Pothecaries.

W

WOod-Roſe, or *Wilde-Eglantine*, is that ſmall thinne flower which growes vpon *Bryars* in woods or hedges.

Y

YArrow is an hearbe called the *Water-Violet*, and growes in Lakes or mariſh grounds.

FINIS.

The deuision of the Titles entreated of in these Bookes following.

First, of the *Horse*, his Nature, Diseases, and Cures: with the whole Art of Riding, and ordering all sorts of *Horses*, from *fol.* 1. to 88.

2 Of the *Bull*, *Cow*, *Calfe*, or *Oxe* their breeding, feeding, and curing, from *fol.* 88 to 107.

3 Of *Sheepe*, their choise, vse, shape, infirmities and preseruation, from *fol.* 107. to 120.

4 Of *Goates*, their nature, shape, ordering, and curing, from *fol.* 121. to 126.

5 Of *Swine*, their choise, breeding, curing, and feeding, in eyther Champaine or Wood Countries, from *fol.* 126. to 138.

6 Of tame *Conies*, from *fol.* 138. to 144.

7 Of *Poultry*, their ordering, fatting, cramming, and curing all the diseases to them incident, from *fol.* 144. to 163.

8 Of *Hawkes*, eyther short-winged, or long-Winged, the generall cures for their diseases and infirmities from *fol.* 164. to 176.

Of

9 Of *Bees*, their ordering, profit and preseruation, from *fol.* 177. to 182.

10 Of *Fishing*, and making *Fish-ponds*, from *fol.* 183. to the end.

Published by Authority.

THE GENERALL CVRE

and Ordering of all HORSES: As alſo the whole Art of Riding great Horſes, with the breeding, breaking, and ordering of them: Together with the manner how to vſe the Running, Hunting, and ambling Horſe, before, in, and after their Trauaile.

CHAPTER I.

Of the Horſe in generall, his choiſe for euery ſeuerall vſe, his Ordering, Dyet, and beſt preſeruation for health, both in Trauaile and in reſt.

THE full Scope and purpoſe of this Worke, is in few, plaine, and moſt vndoubted true words, to ſhew the Cure of all manner of diſeaſes belonging to all manner of neceſſary Cattell, nouriſhed and preſerued for the vſe of man; making by way of demonſtration ſo eaſie and playne a paſſage, to the vnderſtanding and accompliſhment of the ſame, that not the ſimpleſt, which hath priuiledge to be eſteemed no Idiot; nor the pooreſt, if hee can make two ſhillings, but ſhall both vnderſtand how to profit himſelfe by the Booke,

and at the deareſt rate purchaſe all the receipts and ſimples declared in the whole Volume. For in ſober truth, this Booke is fit for euery Gentleman, Husbandman, & good mans pocket, being a memory which a man carrying about him wil when it is cald to account, giue a man full ſatiffaction, whether it be in the Field, in the towne, or any other place, where a man is moſt vnprouided.

Nature of Horſes.

And now foraſmuch as the Horſe of all Creatures is the nobleſt, ſtrongeſt, and apteſt to do a man the beſt & worthieſt ſeruices, both in Peace and Warre, I thinke it not amiſſe firſt to begin with him. Therefore for his nature in generall: He is valiant, ſtrong, nimble, and aboue al other beaſts moſt apt & able to endure the extremeſt labours: the moiſt quality of his compoſition being ſuch, that neither extreame heat doth dry vp his ſtrength, nor the violence of cold freeze the warme temper of his moſing ſpirits, but that where there is any temperate gouernement, there he withſtandeth all effects of ſickneſſe, with an vncontrolled conſtancy. He is moſt gentle and louing to the man, apt to be taught, and not forgetfull when any impreſſion is fixed in his braine. He is watchful aboue all other beaſts, and wil indure his labour with the moſt emptieſt ſtomacke. Hee is naturally giuen to much cleanlineſſe, is of an excellent ſcent, and offended with nothing ſo much as euill ſauours.

The choiſe of Horſes, and their ſhapes.

Now for the choyſe of the beſt Horſe, it is diuers, according to the vſe for which you will imploy him. If therefore you would haue a Horſe for the Warres, you ſhal chuſe him that is of a good tal ſtature, with a comly leane head, an out-ſwelling fore head, a large ſparkling eye, the white whereof is couered with his eye-browes, and not at all diſcerned, or if at all, yet the leaſt is beſt, a ſmall thinne eare, ſhort and pricking; if it be long, well carried,

carried, and euer mouing, it is tollerable; but if dull or hanging, moſt hatefull: a deepe necke, large creſt, broad breaſt, bending ribs, broad and ſtraight chine, round and ful buttocke, with his huckle-bones hid, a taile high and broad, ſet on neyther too thicke nor too thin; for too much haire ſhewes ſloath, and too little, too much choller and heat: a ful ſwelling thigh, a broad, flat, and leane leg, ſhort paſternd, ſtrong ioynted, and hollow hones, of which the long is beſt, if they be not wierd, and the broad round the worſt.

The beſt colours are Browne-bay, Dapple-gray, Roand, Bright-bay, Blacke with a white neare-foot behind, white farre-foot before, white rache or white ſtar, Cheſſe-nut or Sorrell, with any of thoſe markes, or Dun with a blacke liſt: And of theſe Horſes, for the warres, the courſer of *Naples* is accounted the beſt, the *Almaine*, the *Sardinian*, or the *French*. Colours of Horſes.

If you will chuſe a Horſe for a Princes Seat, any ſuprea me Magiſtrate, or for any great Lady of ſtate, or woman of eminence, you ſhal chuſe him that is of the fineſt ſhape, the beſt reyne, who naturally beares his head in the beſt place, without the helpe of the mans hand, that is of nimbleſt and eaſieſt pace, gentle to get vpon, bold without taking affrights, and moſt familiar and quiet in the company of other horſes: his colour would euer bee milke white, with red fraynes, or without, or elſe faire dapple-gray, with white maine and white tayle: And of theſe the *Engliſh* is beſt, then the *Hungarian*, the *Swethland*, the *Fotand*, the *Iriſh*. Horſe for a Princes ſeate.

If you will chuſe a horſe only for trauel, euer the better ſhape, the better hope, eſpecially looke that his head be leane, eyes ſwelling outward, his necke wel riſen, his chine well riſen, his ioynts very ſtrong, but aboue all, his Horſes for Trauaile.

pasternes short and straight, without bending in his going, and exceeding hollow and tough Houes: let him be of temperate nature, neyther too furious, nor too dull, willing to goe without forcing, and not desirous to Run when there is no occasion.

Hunting horses. If you wil chuse a Horse for Hunting, let his shape in general be strong, and wel knit together, making equall proportions, for as vnequall shapes shew weakenesse, so equal members assure strength and indurance. Your vnequal shapes are, a great head to a little necke, a big body to a thinne buttocke, a large limbe to a little foot, or any of these contraries, or where any member suits not with the whole proportion of the body, or with any limbe next adioyning. Aboue all, let your hunting horse haue a large leane Head, wide Nostrils, open chaud, a bigge Wesand, and the Winde pipe straight, loose, wel couered, and not bent in the pride of his Reining: The English horse bastardized with any of the formes Races first spoake of, is of all the best.

Running horses. If you chuse a Horse for Running, let him haue all the finest shape that may be, but aboue all things let him be nimble, quicke and fiery, apt to flye with the least motion: long shapes are sufferable, for though they shewe weakenesse, yet they assure suddain speed. And the best Horse for this vse, is the *Arabian*, *Barbary*, or his bastard. Iennets are good, but the *Turkes* are better.

Coach-Horses. If you wil chuse a horse for the Coach, which is called the swift draught, let his shape be tall, broad and wel furnisht, not grosse with much flesh, but with the bignesse of his bones; especially looke he haue a strong necke, a broad breast, a large chine, sound cleane limbes, & tough houes: and for this purpose your large English Geldings are best, your Flemish Mares next, and your strong ston'd

ſton'd horſes tollerable, *Flemiſh* or *Friſons*.

If you wil chuſe a Horſe for portage, that is, for the Packe or Hampers, chuſe him that is exceeding ſtrong of body and Limbes, but not tall, with a broad backe, out-ribs, ful ſhoulders, and thicke withers; for if he be thin in that part, you ſhal hardly keepe his backe from galling: be ſure that he take a long ſtride with his feete, for their pace being neither trot nor amble, but onely a foot pace, he which takes the largeſt ſtrides, goes at the moſt eaſe, and ridds his ground faſteſt. Packe-horſes.

Laſtly, if you wil chuſe a horſe for the Cart or plough, wh ch is the ſlow draught, chuſe him that is of moſt ordinary height, for horſes in the cart vnequaly ſorted, neuer draw at eaſe, but the tal hang vp the low horſe. Let them be of good ſtrong portion, big breaſted, large bodied, and ſtrong limb'd, by nature rather inclind to craue the whip, then to draw more then is needfull. And for this purpoſe Mares are moſt profitable; for beſides the effecting of your worke, they yearely bring you forth increaſe; therefore if you furniſh your draught with Mares to breed, obſerue in any wiſe to haue them faire-fore-handed, that is, good head, necke, breaſt and ſhoulders; for the reſt it is not ſo regardfull, onely let her body be large, for the bigger roome a Foale hath in the dammes belly, the fairer are his members. And aboue all things, obſerue neuer to put your draught beaſts to the ſaddle, for that alters their pace, and hurts them in their Labour. Cart-horſes. Of Mares.

Now for the ordering of theſe ſeueral horſes: firſt for the horſe for ſeruice, during the time of his teaching, which is out of the wars, you ſhal keep him high & luſtily, his food, no ſtraw but good hay, his prouender cleane dry oates, or two parts oates, and one part Beanes or Ordering of Horſes for Seruice.

Peaſe, well dried and hard, the quantity of halfe a pecke at a watering, morning, noone, and euening is ſufficient. In his daies of reſt you ſhall dreſſe him betwixt fiue and ſixe in the morning, water betwixt ſeauen and eight, and feede from nine till after eleauen: in the afternoone you ſhall dreſſe betwixt three and foure, water betwixt foure and fiue, and giue prouender till ſixe, then litter at eight, and giue food for all night. The night before he is ridden, you ſhal at nine of the clocke at night take away his hay from him; at foure of the clock in the morning giue him a handful or two of oates, which being eaten, turne him vpon his ſnaffle, rub all his body and legges ouer with drye cloathes, then ſaddle him, and make him fit for his exerciſe. Soone as he is cald for to be ridden, waſh his Bit in faire water, and put it into his mouth with all other things neceſſary, draw vp his girths, and ſee that no buckles hurt him: then leade him forth, and as ſoone as he hath beene ridden, all ſweating as he is, lead him into the ſtable, and firſt rubbe him quickly ouer with drye wiſpes, then take off his ſaddle, and hauing rubd him all ouer with dry cloathes, put on his houſing cloth, then ſet on the ſaddle againe, and girt it; then lead him forth, and walke him vp and downe in gentle manner, an houre or more, till he be cold; then ſet him vp, and after two or three houres faſting, turne him to his meat: then in the afternoone, curry, rub, and dreſſe him, then water him, and order him as is aforeſayd.

Ordering of Horſes for Princes ſeates.

For ordering of the horſe for a Prince, or great Ladies ſeate, let it be in his time of reſt, like vnto the horſe for ſeruice: and in his time of labour like the trauailing horſe, as ſhall bee ſhewed inſtantly: onely becauſe he is to bee more choiſely kept, I meane in the beautifulleſt manner, his coate lying ſmooth and ſhining, and his whole body without

without any ſtayne or ill-fauourdneſſe, you ſhall euer when he hath bin ridden, and commeth in much ſweating, preſently haue him into the ſtable, and firſt rub him downe with cleane wiſps, then taking off his ſaddle, with a ſword-blade whoſe edge is rebated, you ſhall ſtroake his necke and body cleane ouer, leauing no ſweat nor filth that can be gotten out; then cloath him vp, and ſet on the Saddle, and walke him forth as aforeſayd: after, order and dyet him as you doe other trauailing horſes: dry oates is his beſt prouender, if he be fat and full; and Oates and Beanes, if he be poore, or ſubiect to loſe his fleſh quickly.

Ordering of trauailing horſes.

For your trauailing horſe, you ſhall feede him with the fineſt Hay in the Winter, and the ſweeteſt graſſe in Summer: His prouender would be drye Oates, Beanes, Peaſe or Bread, according to his ſtomacke: in the time of reſt, halfe a pecke at a watering is ſufficient, in the time of his labour, as much as hee will eate with a good ſtomacke. When you trauaile him, water two houres before you ride, then rub, dreſſe, and laſtly feed, then bridle vp, and let him ſtand an houre before you take his backe. Trauaile moderately in the morning, til his winde be rack'd, and his limbes warmed, then after doe as your affaires require. Be ſure at night to water your horſe two miles before you come to your iournies end, then the warmer you bring him to his Inne, the better: walke not, nor waſh not at all, the one doth beget colds, the other foundring in the feete or body: but ſet him vp warme, wel ſtopt, and ſoundly rubd with cleane litter. Giue no meat whileſt the outward parts of your horſe are hot or wet with ſweate, as the eare-rootes, the flanckes, the necke, or vnder his chaps: but being drye, rubbe and feed him according to the goodneſſe of his

ſtomacke. Change of food begetteth a ſtomack, ſo doth the waſhing of the tongue or noſtrils with vinegar, wine and ſalt, or warme vrine. Stop not your horſes fore-feet with Cowes dung, til he be ſufficiently cold, and that the blood and humours which were diſperſed, be ſetled into their proper places. Looke wel to his backe, that the ſaddle hurt not, to the girths that they gal not, and to his ſhooes, that they be large, faſt, and eaſie.

Ordering of hunting horſes.

For the ordering of your Hunting-horſe, let him in the time of his reſt haue al the quietneſſe that may be, much Litter, much Meate, and much dreſſing: water euer by him, and leaue him to ſleep as long as he pleaſeth. Keep him to dung rather ſoft then hard, and looke that it be wel coloured and bright, for darkneſſe ſhewes greaſe, and redneſſe inward heating. Let exerciſes and maſhes of ſweet Mault after, be his vſual ſcourings, & let bread of cleane Beanes, or Beanes and Wheat equally mixt, be his beſt food, and Beanes and Oates the moſt ordinary.

Ordering of running-horſes.

For the ordering of your Running-horſe, let him haue no more meat then to ſuffice nature, drinke once in foure and twenty houres, & dreſſing euery day once at noone onely. Let him haue much moderate exerciſe, as morning and euening ayrings, or the fetching of his Water, and know no violence but in his courſes onely. Let him ſtand darke and warme, haue many cloathes, and much Litter, being wheat ſtraw only. If he be very fat, ſcoure oft: if of reaſonable ſtate, ſcoure ſeldome: if leane, then ſcoure but with a ſweet maſh onely. Be ſure your horſe be empty before hee courſe, and let his foode be the fineſt, lighteſt, and quickeſt of digeſtion that may be: the ſweats are more wholeſome that are giuen abroad, and the cooling moſt natural which is giuen before he come into the ſtable. Keepe his limbes with coole oyntments,

and

and by no meanes let any hote ſpices come in his body: if he grow dry inwardly, waſh't meate is wholeſome. If he grow looſe, then giue him ſtraw in more abundance. Burning of ſweet perfume in the ſtable is wholſome; and any thing you either do about your horſe, or giue vnto your horſe, the more neate, cleanly, and ſweete that it is, the better it nouriſheth.

Ordering of Coach-horſes.

For ordering the Coach horſe, let him haue good dreſſing twice a day, Hay and Prouender his belly full, and Litter enough to tumble on, and hee cannot chuſe but proſper. Let him be wa k't and waſht after trauaile, for by reaſon of their many occaſions to ſtand ſtill, they muſt be inur'd to all hardneſſe, though it be much vnwholeſome. Their beſt food is ſweet Hay, and wel dried Beanes and Oates, or Beane-bread: Looke well to the ſtrength of their ſhooes, and the galling of their harneſſe: Keepe their legges cleane, eſpecially about the hinder fetlockes, and when they are in the houſe, let them ſtand warmely cloathed.

Ordering of the Packe and Cart-horſe.

For the ordering of the Pack-horſe, or the Cart-horſe, they neede no waſhing, walking, or houres of faſting; only dreſſe them wel, looke to their ſhooes and backes, and then fil their beſſies, and they will doe their labour. Their beſt food is ſweet Hay, Chaffe and Peaſe, or oate-huls and peaſe, or chopt ſtraw and Peaſe mixt together: once a weeke to giue them warme Graines and Salt is not amiſſe, for their Labour wil preuent the breeding of wormes, or ſuch like miſchiefes.

For the preſeruation of all Horſes.

Now for the general preſeruation of horſes health, it is good whilſt a horſe is in youth & ſtrength, to let him blood twice in the yeare, that is, beginning of the Spring and beginning of the Fal, when you may beſt afford him a weekes reſt. After you haue let him blood, two daies after

ter giue him a comfortable drench, as two ſpoonfuls of *Diapente*, or ſuch like, (which is called horſe *Methridate*) in a quart of ſtrong Ale. Vſe oft to perfume his head with Frankinſence, and in the heat of Summer vſe oft to ſwimme him. Let a fat horſe drinke oft, and a little at once, and a leane horſe whenſoeuer hee hath appetite. Much rubbing is comfortable, and cheereth euery member. Be ſure to let your horſe eate graſſe once in a yeare, for that cooleth the blood, ſcoures away groſſe humors, and giues great ſtrength and nouriſhment to the body. If notwithſtanding all theſe principles, your horſe fall into ſickneſſe and diſeaſe, then looke into the Chapters following, and you ſhall finde the trueſt, beſt approued, and the moſt familiar medicines for all manner of infirmities, that euer were knowne or publiſhed, except my Maiſter-peece.

Chap. 2.

Of riding in generall, and of all the particular knowledges belonging to the Art of Riding of a great Horſe, or Horſe for ſeruice or pleaſure.

Imperfect vſe of this recreation.

HAuing ſpoken ſomething already of horſes, it now followes wee ſay ſomething of the commendable exerciſe of riding of great horſes, which in the very action it ſelfe ſpeaketh Gentleman to al that are performers or doers of the ſame. And although our Engliſh Gentry from a ſloath in their induſtry, ayme for the moſt part at no more skill then the riding of a ridden and perfect horſe, which is but onely the ſetting foorth of another mans vertue, and thereby making themſelues richer in diſcourſe then action: yet our Engliſh Husbandman, or good man, whom I ſeeke to make exact and perfect in all

all things, ſhall not onely recreate himſelfe by riding the horſes whom other men haue made perfect, but ſhall by his owne practiſe bring his Horſe from vtter ignorance to the beſt skill that can be deſired in his motions, wherein hee ſhall finde a twofold pleaſure, the one, an excellent contentment to his minde, that hee can performe ſo worthy an action, without the chargeable aſſiſtance of others: and the other a healthfull ſupport to his body, when by ſuch recreation his ſpirits and inward faculties are reuiued and inflamed. The pleaſure of Riding.

But now me thinkes I heare ſome ſay, that I haue vtterly taken away the tune of this ſtring, I haue ſtricken ſo oft vpon it, and that indeede there can be no delight where there is no variation: and that ſurely I cannot vary any more vpon this playne-ſong, but the World will find diſcord eyther in this, or my former deſcants. But let them not deceiue themſelues, for my building ſtandeth on a firme rocke, and I know both ſhal be worthily iuſtifiable: onely this I muſt informe all men, that in times paſt, long ſince, when our firſt rules of Horſemanſhip were giuen vnto vs, our Maſters were not ſo skilfull in the abilities of horſes performances as we are, but meaſured them by the proportions of their owne weaker natures, and thence became ſo too much tender ouer them, that they neyther reſpected the greatneſſe of their owne labours, nor the length of time, before they aſſumed to their deſires, ſo in the end they might aſpire to their wiſhes with ſafety and full ſatisfaction: whence it came to paſſe that in thoſe times, & euen now in theſe, (chiefly amongſt thoſe which are meerely riders, and no Keepers) there is no leſſe time allowed to the making vp of a perfect horſe, then two yeares, when we know, and my ſelfe from experience can iuſtifie the ſame, that if the Rider The Authors Apology.

Rider can keepe as wel as Ride, that is, giue as wel directions for the preseruation of a horses health, and the auoidance of *Sorrances* and sickneſſe, as put in practiſe artfully euery violence to be vſed in his Leſſons, he may very wel make vp a perfect horſe in three moneths, fit either for pleaſure or battaile, which is the ful ſcope and end of this Treatiſe: wherein I would not haue any man expect either new Rules, or a contradiction of any already ſet downe by men of practiſe and knowledge in the Art, but onely a ſtraightning or drawing of them together into a much narrower compaſſe, giuing ſatisfaction to our deſires, and finiſhing vp our worke with ſpeede, which before was almoſt loſt or neglected, with the length of our Labours, as you ſhal fully perceiue by this diſcourſe which followeth.

The taming of a young Colt.

First then to ſpeak of the taming of a yong colt, which is as it were the preface or introduction to the Art of Riding: you ſhal after he hath beene in the houſe a weeke, or a fortnight, and is familiar with the man, and wil withall patiently indure currying, Combing, Rubbing, clawing, and handling in euery part and member of his body, without any ſhew of Rebellion or knauiſhneſſe, which you ſhal compaſſe by all gentle and eaſie meanes, doing nothing about him ſuddainly or raſhly, but with leiſure and moderation: then you ſhal offer him a Saddle, which you ſhal ſet in the manger before him, that he may ſmel to it, and looke vpon it, and you ſhal gingle the girths and ſtirrops about his eares, to make him careleſſe of the noiſe, then withal gentleneſſe, after you haue rub'd his ſides therewithal, you ſhal ſet it on his backe, and gird it gently on, and then place his Crooper with all eaſe; which done, you ſhal take a ſweete watering trench, waſht, and annoynted with honey and ſalt, and

His ſadling and bridling.

and put it into his mouth, placing it to hang directly about his tuſh, and as it were a little leaning thereupon: this you ſhal doe in the morning as ſoone as you haue dreſt him, and then thus ſadled and bridled you ſhal leade him forth, and water him in your hand abroad: then bringing him in, and after hee hath ſtood a little reined vpon his trench an houre or more, take away the bridle and ſaddle, and let him goe to his meate til the euening: then leade him forth (as before) with the ſaddle to the water, then when he is ſet vp, gently take off his ſaddle and cheriſh him, and then dreſſe him, and cloath him vp for all night.

The next day ſaddle and bridle him as before ſayd, and put on him a ſtrong Muſrole of writhen Iron, or a ſharpe Cauezan, and a Martingal, which you ſhal buckle at ſuch length that he may no more but feele it when he ierketh vp his head, and then lead him forth into ſome new plowed field, or ſoft ground, and there after you haue made him trot a good ſpace about you in your hand, and thereby taken away from him all his wantonneſſe, and knauiſh diſtractions, you ſhal offer your foot to the ſtirrop, at which if he ſhew any diſtaſte, eyther in body or countenance, you ſhal then courſe him about againe: then offer againe, and with leiſure riſe halfe way vp, and goe downe againe: at which if he ſhrinke, correct him as before, but if he take it patiently, then cheriſh him, and ſo mount into the Saddle, which done, after cheriſhing, light downe againe, and giue him bread, or graſſe to eate: then looke that your girths be wel girted, and ſtrait, that the crooper be ſtrong and of iuſt length, that the bridle hang euen, and in his due place without inward or outward offence, that your ſtirrops be fit, and generally al things without offence, either to your

The firſt backeing.

your ſelfe or to the beaſt, and then as before, mount his backe, ſeate your ſelfe iuſt and euen in the ſaddle, make the reynes of your bridle of equall length, carry your rod without offence to his eye, in your right hand, the point either directly vpright, or twarted towards your left ſhoulder: Then hauing cheriſht him, let the Groome which before led him, hauing his hand on the chaffe halter, leade him forward a dozen or twenty paces, then gently ſtraining your hand, with the helpe of the footman, make him ſtand ſtill, then cheriſh him, and leade him forward againe, & doe this fiue or ſixe times one after another, till by continuall vſe you make him of your owne accord (without the footmans helpe) by giuing your body, & thruſting your legges forward, goe forward, which as ſoone as he doth, you ſhall ſtay him, and cheriſh him, and then ſitting on his backe, let your footman leade him home, and bring him to the blocke, where after you haue cheriſht him, you ſhall gently alight, & cauſe him to be led vp, & well dreſt & meated.

The next day you ſhal bring him forth as before, and in all points take his backe as aforeſaid, and ſo by the helpe of the footman trot him fore-right halfe a mile at leaſt; then let the footman lay off his hand, & walke by him, till you haue of your ſelfe trotted him foorth another halfe mile, then cheriſh him, and make the footman giue him ſome graſſe or bread to eate, and then taking a large compaſſe, trot him home, and bring him to the block as before, and there alight, and ſo ſet him vp.

The third day let your footman light vpon ſome ſpare iade, and then bringing your colt to the blocke, take his back gently, & after you haue cheriſht him, the other riding before you, follow him forth-right a mile, euer and anone at the end of twenty or thirty ſcore, ſtopping the

the colt gently, cheriſhing him, & making him yeeld and goe backe a ſtep or two, and then putting him forward againe, till he be ſo perfect, that with the leaſt motion he will go forward, ſtop, and retire, which will be effected in two dayes more: in which ſpace if he chance at any time to ſtrike or rebell, you ſhall make him which rides before you take the ſpare reyne, and leade him forward, whileſt you giue him two or three good laſhes vnder the belly, and then being in his way, take the ſpare reine to your ſelfe againe: and thus you ſhall doe till all faults bee amended: then you ſhall ſpare your horſeman or guide, and onely by your ſelfe for three or foure daies more, trot him euery morning and afternoone, at leaſt a mile or two forward, vſing him only to ſtoppe and retire, and bringing him home a contrary way to that you went foorth, till he be ſo perfect and willing, that he will take his way how or in what manner your ſelfe pleaſeth, euer obſeruing to mount and diſmount at the blocke onely, except ſome ſpeciall occaſion conſtrayne you to the contrary. This you may very well bring to paſſe the firſt weeke of the Horſes riding.

As ſoone as you ſee your horſe wil receiue you to his backe, trot forth-right, ſtop and retire, and doe all this with great patience and obedience, you ſhal then call into your minde the three maine points of a Horſemans knowledge, which are helpes, corrections, and cheriſhings: and for helpes, they conſiſt in theſe: First the voyce, which ſounding ſharply and cheerefully, as crying *Via, how, hey*, and ſuch like, adde a ſpirit and liueline ſſe to the horſe, and lend a great helpe to al his motions: then the bridle, which reſtrayned or at liberty, helpes him how to doe, and ſhewes which way to doe:

The three main poynts of a Horſemans skil.

Of helpes and which they be.

Then

then the Rod which being onely ſhewed, is a helpe to direct, being only mooued, helpes the quickneſſe and nimbleneſſe of the motion; and beeing gently toucht withal, helpes the loftineſſe of a horſes ſalts and leaps, and makes him as it were gather all his ſtrength into one point: and laſtly, the calues of the Legges, *Stirrop-leathers*, and *ſtirrops*, which mooued by the horſes ſide, helpes him to nimbleneſſe, ſwiftneſſe, and readineſſe in turning. Some to theſe helpes adde the helpe of the Spur, chiefly in high ſalts or boundings, but it muſt be done in a iuſt and true time, and with ſuch gentle bitterneſſe, that the horſe may vnderſtand it for a helpe, or elſe he wil take diſtaſte, and finding it ſauour like correction, in ſtead of bettering his doings, doe with more diſorder, as to ſpraule with his fore-feete in aduancing, to yerke out with one or both his hinder feete in the coruet or bounding, ſhaking of his head, and ſuch like, as wil appeare in practiſe.

Of Corrections and which they be.

Now of Corrections the moſt principal is the Spur, which muſt not at any time be giuen triflingly, or itchingly, but ſoundly and ſharply, as oft as iuſt occaſion ſhal require: then the Rod, which vpon diſorder, ſloth, or miſcarriage of the members, muſt bee giuen alſo ſoundly: then the voice, which being deliuered ſharply and roughly, as *ha villaine, carrikro, diablo*, and ſuch like threatnings, terrifies the horſe, and maketh him afraide to diſobey: and laſtly the bridle, which now and then ſtricken with a hard chocke in his mouth, reformeth many vices and diſtemperatures of his head; yet this laſt muſt be done ſeldome, and with great diſcretion, for to make a cuſtome thereof, is the ready way to ſpoile a horſes mouth.

Of cheriſhings.

Now of cheriſhings, there are generally in vſe but three,

three, as firſt the voice, which being deliuered ſmoothly; and louingly, as crying *holla, ſo boy, there boy there*, & ſuch like, giues the horſe both a cheerefulneſſe of ſpirit, and a knowledge that he hath done well: then the hand, by clapping him gently on the necke or buttocke, or giuing him graſſe or other foode to eate after hee hath pleaſed you: and laſtly, the bigge end of the Rod, by rubbing him therewith vpon the withers or maine, which is very pleaſing and delightful to the horſe.

Now after theſe ordinary and actual helpes, corrections, and cheriſhings, you ſhall haue reſpect to the Muſrole, or Cauezan, and Martingale, which carry in them all the three former both ſeuerall and vnite: for it is firſt an eſpecial helpe and guide to euery wel-diſpoſed horſe, for ſetting of his head in a true place, forming of his Reine, and making him appeare comely and gallant in the eyes of the beholders; then it is a ſharpe correction when a horſe yerketh out his noſe, or diſordereth his head any way, or ſtriueth to plunge or runne away with his Rider: And laſtly, it is a great cheriſhing vnto the Beaſt, when he yeeldeth his head to your hand, by ſhrinking from his face, and ſo leauing any more to torment him, but when he offendeth: whence it comes that more from this then any thing elſe, the Horſe firſt gaineth the knowledge of his Maſters will, and is deſirous to performe it: therefore you ſhal bee very carefull to the placing of this vppon the Horſe, as firſt, that it hang ſomewhat low, and reſt vppon the tender Griſſell of the Horſes noſe, whereby the correction may be the ſharper when occaſion requires it; then that it be looſe and not ſtrait, whereby the horſe may feele vppon the yeelding in of his head, how the offence goeth from him, and ſo know that onely his owne diſorder is

Of the Muſrole and Martingale.

his owne puniſhment. Laſtly, he ſhal be careful to note how hee winneth the Horſes head, and by thoſe degrees to draw his Martingale ſtraiter and ſtraiter, ſo as the Horſe may euer haue a gentle feeling of the ſame; and no more, til his head and Reine be brought to that perfection which you deſire, and then there to ſtay, and keep the Martingale conſtantly in that place only, which you ſhal performe in thoſe few dayes which you trote your Horſe forth-right, being before you bring him to any Leſſon, more then the knowledge of your ſelfe, and how to receiue you to his backe, and trot forth obediently with you.

Of treading the large Ring.

When your horſe is brought vnto ſome certainty of Reine, wil trot forth-right with you at your pleaſure, and by your former exerciſe therein is brought to breath & delight in his trauaile, which wil grow & increaſe vpon him, as you grow and increaſe in your labour, then you ſhal bring him to the treading foorth of the large Rings in this manner: Firſt, if he be of heauy and ſluggiſh nature, ſloathful and dull, and albeit hee haue ſtrength and ſufficiency of body, yet you finde him ſlouenly and vnapt, then you ſhal trot him into ſome new plowed field, ſoft and deepe: But if he be of quicke and of fiery ſpirit, apt, nimble, and ready to learne, then you ſhal trot him into ſome ſandy or grauelly place, where is ſtrong and firme foot-hold, and there you ſhall marke out a ſpacious large Ring at leaſt threeſcore or foureſcore paces in compaſſe, and hauing walkt him ſixe or ſeauen times about the ſame on your Right hand, you ſhal then by a little ſtraitning of your right Reine, and laying the calfe of your left Legge to his ſide, make a halfe-circle within your Ring vpon your Right hand, downe to the center or mid point thereof, and then by ſtraitning your left

Choyce of ground.

left Reine a little, and laying the calfe of your Right leg to his ſide, make another halfe circle to your left hand, from the center to the outmoſt Verge, with two halfe circles contrary turned, will make a perfect Roman S. within the Ring; then keeping your firſt large circumference, walke your horſe about on your left hand, as oft as you did on your Right, and then change within your Ring as you did before to your Right hand again, & then trot him firſt on the Right hand, then on the left, ſo long as tyou ſhall thinke conuenient. And although our anciuan Maſters in this *Art* haue preſcribed vnto vs certaine numbers of Ring-turnes, and how oft it is meete to goe about on either hand, as if all Horſes were of one euen ability, yet I would wiſh you to neglect thoſe Rules, and onely to practiſe your horſe in this Leſſon, according to his ſtrength of body, ſometimes applying him therein an houre, ſometimes two, & ſometimes three, more or leſſe according to your diſcretion: for the ſpace of time can neither bring wearineſſe nor tiring: and for your change of hands, you ſhall do it as oft as ſhall ſeeme beſt to your ſelfe, being euer very carefull to giue him the moſt exerciſe on that hand, on which he is euermoſt vnwillingeſt to goe: and in this leſſon be carefull alſo that hee doe it chearefully, luſtily, and nimbly, quickning and inflaming his ſpirits by all the meanes poſſible: and when you find that he wil trot his large rings perfectly, which wil queſtionleſſe be in leſſe then a weeks ſpace, being wel applied therein, for you muſt not fore-ſlow any morning except the Sabbaoth, nay hardly any after-noone: alſo if you find him ſloathful and heauy, for there is no greater hinderance then the Riders too much tendernes, nor no greater furtherance then a continual moderate exercile: herefore as I ſaid, when he wil trot his Rings wel, then

Of galloping large rings.

in the ſame manner, and with the ſame changes, you ſhal make him gallop the ſame Rings, which he ſhal doe alſo with great dexterity, lightneſſe, and much nimbleneſſe, without loſing the leaſt part or grace of his beſt Reine, nay ſo carefull you ſhalbee thereof, that in his galloping you ſhal, as it were, gather his body together, and make his Reine rather better then it was, and make him take vp his feet ſo truly and loftily, that not any eie may ſee or perceiue a falſhood in his ſtroke, but that his inward feet play before his outward, and each of a ſide follow the other ſo directly, that his gallop may appeare as the beſt grace of all other motions: neither ſhal you enter him into this leſſon raſhly & haſtily, but ſoberly & with diſcretion, making him firſt gallop a quarter of the ring, then halfe, then three parts, and laſtly the whole Ring: neither ſhal you force him into his gallop with violence, or the ſharpnes of ſpurs, but with ſpirit and mettal, making him by the lightnes and cheerefulnes of your owne body, paſſe of his owne accord into his gallop, and eſpecially in his changes, where you may let him feele your Leg, and ſhew him your Rod on the contrary ſide: and herein is to be noted, that continually thoſe changes (in as much as they are made in a much ſtraiter compaſſe) muſt be done euer with great quickneſſe, and more ſtirring nimbleneſſe then the intire Leſſon.

Helpes in the large ring-turnes.

Now for the helps neceſſary in theſe large ring-turnes, they conſiſt generally in the *Voice*, *Rod*, *Calues* of your Legs, and the *Bridle*: in the *voice* by quickning him vp, and reuiuing his ſpirits when he growes ſloathful, with theſe words, *How*, *hey*, or *via*: In the *Rod*, by ſhewing it him on the contrary ſide, or laying it on the contrary ſhoulder, and ſometimes by ſhaking it ouer his Head, (which is a kinde of threatning) chiefly when you make your

your changes. In the *calues of your legs*, when you clap them hard to the contrary ſide to which he turneth, or by ſpringing and ierking your legs forward, hard vpon your ſtirrop-leathers, which wil quicken him, and make him gather vp his limbes better then the ſpur by many degrees: and laſtly in the *Bridle*, by drawing it in a little ſtraiter, and holding it with ſome more conſtancie, when you put any of your former helpes in vſe, or doe any thing with more life or courage, for that maketh him draw his limbes together, and to ſtraiten his rings with gracefull comelineſſe.

Corrections in the ring-turnes

For the corrections in theſe large rings they be diuers; as namely, the *bridle*, the *ſpurre*, and the *rod*, and ſometimes the *voyce*, yet that but ſeldome: for the bridle, you ſhall correct your horſe therewith if hee carry his head or chaps awry, making as it were mowes & ill-fauoured countenances, giuing him now and then a little check in the mouth, and awakning him from ſuch forgetful paſſions, or now and then drawing the trench to and fro in his mouth, which wil reforme the errour; then the ſpurre, which muſt be laid ſharpe and hard to his ſides, when you finde your helpes will do no good, but that his ſloath rather more and more increaſeth, or when hee preſſeth and hangeth hard vppon your hand, or looſeth the tutch of his reyne, or ſuch like vices: for the rodde, when you finde that hee neglecteth the ſhewing or ſhaking of it, or when he diſordereth any of his hinder parts, and will not gather them vp comely together, then you ſhall therewith giue him a ſound laſh or two vnder the belly, or ouer the contrary ſhoulder, and to any of theſe former corrections you ſhall euer accompany the threatning of your voyce, when the fault is too much foule, and no otherwiſe, becauſe there ſhould be euer an entire loue

betwixt the horſe and the horſe man, which continuall chiding will either take away, or at leaſt root out the apprehenſion thereof.

Cheriſhing in the Ring-turne.

Now for your cheriſhings, they are thoſe which I formerly ſpake of; onely they muſt be vſed at no time but when your horſe doth well, and hath pleaſed your mind both with his cunning & tractablenes: and although the time for the ſame be when he hath finiſhed his leſſons, yet there is a ſecret pleaſing & cheriſhing of a horſe with the bridle, which muſt be exerciſed in the doing of his leſſons, and that is the ſweetning of his mouth by a little eaſing of your bridle hand, and gently drawing it vp backe againe, letting it come and goe with ſuch an vnperceiuing motion, that none but the beaſt may know it.

Of ſtopping and going backe.

When your horſe can trot & gallop theſe large rings with all perfectneſſe, which with good induſtry will be perfected in leſſe then a fortnights exerciſe, you ſhall then proceede to make him ſtop faire, comely, and without danger, which you ſhall doe in this manner: Firſt, as ſoone as you haue taken his backe, cheriſh him, put him gently forward, and bring him into a ſwift trot; after you haue trotted him forty or threeſcore yards forward, you ſhall by drawing in your bridle-hand ſtraitly and ſuddenly, make him gather his hinder legs and fore-legs together, and ſo in an inſtant ſtand ſtill, which as ſoone as he doth, immediatly you ſhall eaſe your hand a little, yet not ſo much as may giue him liberty to preſſe forward, but rather to yeeld backward, which if you finde he doth, you ſhall giue him more liberty, and cheriſh him, and then hauing pauſed a while, draw in your bridle-hand, and make him goe backe two or three paces, at which if he ſticke, inſtantly eaſe your hand, and draw it vp againe, letting it come and goe till hee yeeld

and

and goe backward, which (for the moſt part) all horſes at the firſt will doe: but if it be that your horſe rebell and will not goe backe with this gentle admonition, you ſhall then cauſe a foote-man ſtanding by to put him backe with his hand, and in his motion you ſhall cheriſh him, that he may vnderſtand what your will is: and thus euery time you make him ſtop, you ſhall make him retire backe, till in one ſpace of time you haue made both leſſons perfect: and this practiſe you ſhall vſe both till you come to your large rings, and at euery time that you finiſh your leſſon, or giue the horſe breath or eaſe, whereby you ſhall perceiue that your horſe ſhall learne to trot and gallop the large rings, to ſtop and retire backe all in one ſpace of time, becauſe you ſee ſucceſſiuely they follow one another, and are to be done (though three) but as one intire leſſon.

Now for the helpes in theſe leſſons, the beſt for ſtopping is the choice of ground, as by making your horſe euer to ſtop down the ſlope of ſome hill, or deſcending ground, whereby he may be compeld to couch his hidder loines the better, and ſo make him ſtop moſt comely, and to obſerue that the ground be firme and hard, without danger of ſliding, leaſt the horſe finding ſuch an imperfection, grow fearefull, and ſo refuſe to do your will out of his owne danger. In retyring you ſhall helpe him with your rod, by putting it before his breaſt, or ſhaking it before his knees, to make him remoue his feete more quicke and nimbly. Helpes.

For corrections in ſtopping, it muſt ſometimes bee done by our ſelfe, as with the euen ſtroke of your ſpurres when in his ſtop he diſordereth his head, or with any one ſingle ſpurre, when he caſteth out his hinder loynes, and will not ſtop right in an euen line; and ſometimes it Corrections.

must be done by another by-ſtander, when hee refuſeth to ſtop at all, who ſtanding at the place of ſtop, as ſoone as you draw vp your hand, ſhal with his Rod threaten the horſe, and make him not dare to preſſe forward, or if he do preſſe forward, to make him Retire ſwiftly backe ſo much ground as he gayned, both your ſelfe and the by-ſtander, rating him with your voices extremely: for corrections in retiring, they are the euen ſtrokes of both your ſpurs, when he ſtickes or preſſes vpon your hand, and wil not yeeld backe; & alſo your Rod ſtruck ſharply vpon his knees and breaſts, and the Rod of a by-ſtander ſtrucke vpon his breaſt, knees, and face, when his ſtubbornneſſe is too violent.

Cheriſhings. But for his Cheriſhings, they be al formerly ſpoke of, when your will is comely and Obediently performed, beſides the addition of ſome other, as a preſent eaſing of your Bridle-hand, and the clapping and cheriſhing of the by-ſtander, and ſo ſuffering him to ſtand and recouer breath a good ſpace after.

Of Aduancing before. When your horſe can ſtop and retire wel, which may be done in the ſame ſpace, that you teach him his large Ring-turnes, for it is as it were three leſſons learnt in one, you ſhal then teach him to Aduance before when hee ſtoppeth, which is very comely and graceful to the Beholders; and you ſhall doe it in this manner: After you haue ſtopped your horſe, without giuing your hand any eaſe, you ſhal lay the calues of both your legges hard to his ſides, and adde thereto the noiſe of the ſhaking of your Rod, and your voice, by crying *vp, vp*, which wil at firſt (peraduenture) but a little amaze him, becauſe hee vnderſtandeth not your meaning: Therefore you ſhall put him forward againe, and doe as before, and that with a little more ſtrength, continuing the practiſe of the

the ſame till you perceiue he taketh one foote from the earth, then cheriſh him a little, and ſo to the leſſon again, till he take vp both his legges from the ground, which when he doth orderly or diſorderly, yet cheriſh him exceedingly, that he may come to the knowledge of your meaning, without which all your labour is loſt; then to your former practiſe againe, till you haue brought him to that perfectneſſe, that hee wil with all readineſſe aduance as oft as you will giue him the calues of your legs to his ſides, be it leſſe or more times together: this done, you ſhal looke to the orderly and comelineſſe of his aduancing: as firſt, that he taks vp his legs both euen together, and winde them inward towards his body; then that he aduance not too high (for feare of comming ouer vpon you) but couch his hinder loynes cloſe to the ground; then that hee ſprauleth not, nor paweth with his feet forward: and laſtly, that he aduance not for his owne pleaſure, but when you commaund him by your owne direct and orderly motions, for the contrary is a foule fault in Horſemanſhip.

For helpes in this leſſon, they are the calues of your legs, the ſhaking of your rod ouer his head, & your voice, as is before ſaid, & the deſcent of ſome hanging ground, which wil make his hinder loines couch the better. Helpes.

The Corrections are according to the natures of offences, as the euen ſtroake of your Spurs, or a good laſh with your Rod, when you ſee hee fixeth his feet to the ground, and ſtubbornely applies himſelfe to diſobey you, or will take vp his feete one after another, and not both together. If hee doe aduance too high, ſo as he is ready to come ouer vpon you, or if he ſpraule or pawe forth with his feete, you ſhal then not onely giue him both your Spurs hard together, but alſo a good ierke Corrections.

or

or two with your Rod betweene his eares: but if he aduance when you would not haue him, you ſhal then in the ſame inſtant ierke him ouer both the knees with your Rod; and if hee aduance againe, ierke him againe, not ceaſing til he fixe his feete to the ground, or goe backeward, and then cheriſh him.

Cheriſhings. For particular cheriſhings in this Leſſon, they are no other then thoſe formerly ſpoke of, onely they muſt bee done with a more ready watchfulneſſe, in the very inſtant and moment of time, in which he performeth any thing wel, that the Horſe may vnderſtand why, and wherefore he receiueth ſuch contentment, and thereby be incouraged to continue in his goodneſſe, and be more ready to apprehend his Riders pleaſure.

The vſe of Aduancing. For the vſe of Aduancing, it is two fold: as namely, to giue a grace to his other leſſons, and to bring his body to nimbleneſſe: yet for the moſt part it is onely vſed at the ſtop, where when you haue finiſht any leſſon, if then concluding with the ſtop, you make him aduance, once, twice, or thrice, it wil be both a grace to the Beaſt, and ſhew much Art in the horſe-man; alſo it maketh a horſe apt and ready to turne wel, and maketh him truſt to his hinder Legges, whereby his fore-parts may be directed and gouerned at the Horſe-mans pleaſure.

Of yerking behind. Next to Aduancing, you ſhal teach your Horſe to yerke behinde, in this manner: When at any time you haue made him ſtop, you ſhal preſently with your Rod giue him a good ierke vnder the belly neere to his flank, which though at the firſt hee apprehend not, yet by a continual and conſtant vſe thereof, you ſhal in the end bring him to yerke out his hinder legs; at the firſt doing whereof you ſhal cheriſh him, for that is the onely language by which he knowes he doth your will, and then

hauing

hauing pauſed a little, make him do it againe, in reaſing it euery day, and doubling his doings til he be ſo ready, that when you pleaſe to giue the ierke, hee wil then giue the yerke, and then you ſhal looke to the comelineſſe of his doing, that is to ſay, that hee yerke not out his hinder Legs, til his fore-legs be aboue the ground, then that hee yerke not one Legge farther out then the other, but both euen together, then that hee yerke not too high, and laſtly, that he yerke not one legge our whileſt the other is on the ground, all which are errors of great groſneſſe. Therefore to make the horſe more perfect in this leſſon, it ſhal be good to teach him to yerke out behind, when he ſtandeth in the ſtable, by ierking him vpon the buttockes with your Rod, and not ceaſing to moleſt him till he raiſe his Rumpe aboue the ground, and then to cheriſh him, and ſo to apply him without any eaſe and reſt, till he do your wil; then when he is perfect, to put the ſame in practiſe when you are in the fielde on his backe, by turning your Rod in your hand to his buttocke-ward, and touching him therewith, to make him yerke as aforeſaid.

For the Helpes, they are the coaſtant ſtaying his mouth on the bridle, the ſtroake of your Rod vnder his belly, or the gentle touching him vpon the Rumpe with the ſame. Helpes.

The Corrections are onely the euen ſtroake of your Spurs, when either he refuſeth to yerke, or yerketh out diſorderly, and out of malice; or the ſingle Spur on that ſide on which h yerketh out moſt diſorderly: and laſtly, a reſtleſſe holding of him to the Leſſon, not giuing him any reſt or eaſe, till hee do it in that manner which you can wiſh. Corrections.

Then for his Cheriſhings, they are all thoſe formerly mentioned, Cheriſhings.

mentioned, being beſtowed vpon him in the very inſtant of his well doing.

Of turning. When your horſe is perfect in all the leſſons formerly ſpoke of, and vnderſtandeth the helpes and corrections belonging to the ſame, you ſhal then teach him to turne readily on both hands, by ſtraitning his large Rings, and bringing them into a much leſſe compaſſe: and although amongſt Horſe-men, and in the Art of Horſemanſhip, there are diuers and ſundry turnes, ſome high and lofty, as the turne vpon the *coruet*, *Capriole*, or on bounds, ſome cloſe and neere the ground, as the turne *Terra, Terra*, or thoſe we call *Caragolo, Serpeigiare*, and ſuch like, and ſome ſwift and flying, as the *Incauellare, Chambetta*, and ſuch like: yet ſith they all labour but to one end, which is to bring an horſe to an exact ſwiftneſſe and readineſſe in turning, I will in as briefe and plaine manner as I can, ſhew you how to compaſſe the ſame. Firſt, therefore you ſhal make out a Ring ſome three or foure yards in compaſſe, and in the ſame withal gentleneſſe a while walke your horſe, ſuffering him to goe in the ſame at his owne pleaſure, gathering his head vp by little and little, and making him take pleaſure in the ſame, til you finde that he taketh knowledge of the Ring, and wil with all willingneſſe walke about the ſame, coueting rather to ſtraiten it, then inlarge it, which perceiued, you ſhal then carry your bridle-hand conſtant & ſomewhat ſtrait, yet the outmoſt Reine euer ſomewhat more ſtrait then the inmoſt, making the horſe rather looke from the Ring then into the Ring, and the calue of your leg (as occaſion ſhall ſerue) ſomewhat neere to the outward ſide of the horſe, & then you ſhal trot him about the Ring, firſt on the one ſide, and then on the other, making your changes within that ſtrait Ring, as you did before within the large Ring.

And

And in this ſort without ceaſing, you ſhal exerciſe your Horſe a full houre together, then ſtop him, make him aduance twice or thrice together, then retire in an euen Line, and ſo ſtand ſtil a pritty while, and cheriſh him, then when hee hath taken freſh breath, to him agayne, and do as before, continually labouring by rayſing vp your bridle-hand, and thruſting forward your Legs and body, to bring his trot to all the ſwiftneſſe and loftines that may be, and in your changes to do them ſo readily and roundly as may be alſo, making him to lap his outmoſt leg ſo much ouer his inmoſt leg, that he may couer it more then a foot ouer, and thus you ſhal exerciſe him a whole forenoon, at leaſt a week together, only doing his former leſſon but once ouer in a morning, and no more, and in this practice you teach him perfectly three leſſons together, that is, the turne *Terra*, *Terra*, the *Incaualare*, and the *Chambetta*, the turne *Terra*, *Terra*, in the outmoſt circle of the ſtrait Ring, and the *Incaualare* and *Chambetta* in the changes, wherein he is forc't to lap one Leg ouer another, or elſe to lift vp the inmoſt Leg from the ground whileſt he brings the outmoſt ouer it: and ſurely in this Ring, and theſe changes, conſiſteth all the maine Art of turning, and the chiefeſt glory both of the horſe and the horſe-man: and therfore it is meet for euery Rider to thinke this leſſon neuer perfectly learnt, and therefore continually to practiſe his horſe in the ſame, making him not onely tread and trot theſe narrow rings, but alſo gallop them, and from galloping them, to paſſe them about in ground ſalts, as by taking vp his fore-legs from the ground both together, and bringing his hinder fecte into their place, and ſo paſſing the Ring about once, twice, or thrice, at your pleaſure, or as oft as the horſes ſtrength and courage wil allow: and this is the

true

true turne called *Terra, Terra*, and of greateſt requeſt with horſe-men, and likewiſe with ſouldiers; and this will euery horſe naturally and eaſily be brought vnto, onely by a continuall trotting and galloping of theſe narrow rings. Thus you ſee the perfectneſſe of your large rings brings your horſe to an eaſie vſe of the ſtraite rings, and the eaſie knowledge of the ſtraite rings brings a horſe to the perfection of turning, which is the ground and maine ſumme of this Art, as ſtopping begets retiring, and retiring aduancing. Thus euery leſſon as it were a chaine is linckt one to another.

Helpes.

Corrections. The helps belonging to turning, are all whatſoeuer are formerly ſpoken of, becauſe it is a leſſon which beſides that it containeth in it ſelfe all other leſſons, ſo it muſt be done with more courage, Art, and nimbleneſſe, then any elſe whatſoeuer, and therefore the horſe had need of all the aſſiſtance that can poſſibly be giuen him.

The corrections are the ſpurres giuen on the outmoſt ſide, when the horſe ſtickes, and is harder to come about on the one ſide, then on the other; and the rod ſtricken hard on the outmoſt ſide of the offending member, as alſo a continuall labour when the horſe ſhewes either vnwillingneſſe or diſobedience: touching the vnnimbleneſſe of his turning when he beates one legge againſt another, or treads one foot vpon another, the raps and hurts he doth himſelfe are ſufficient corrections, and will both make him know his fault and amend it.

Cherishings. For his cheriſhings, they are alſo the former already ſpoke of, yet to be vſed (if poſſible) with greater earneſtneſſe, in as much as this leſſon being moſt cunning, would for the performance thereof euer receiue the moſt comfort.

Your horſe being brought to this perfection, that he will

will perfectly tread his large rings, ſtop, retire, aduance before, yerke behind, and turne readily on either hand, you ſhall then take away his muſrole and trench, and in ſtead thereof put vpon his head a gentle Cauezan of two ioynts and three peeces, with a chap band vnderneath, which you ſhall buckle cloſe, but not ſtrait, and be ſure that the cauezan lie vpon the tender griſſell of the horſes noſe, ſomewhat neere to the vpper part of his noſtrils, then to the chap-band you ſhall faſten the Martingale, and laſtly to the rings on each ſide the cauezan, you ſhall faſten long diuided reines, more then a yard and a halfe in length a peece, then into his mouth you ſhall put a ſweet ſmooth cannon bit, with a plaine watering chaine, the cheeke being of large ſize, ſo as it may arme a little aboue the point of his ſhoulder; and the kirble ſhall be thicke, round & large, hanging looſely vppon his nether lip, and intiſing the horſe with his lip to play with the ſame. Thus armed you ſhall take his backe and caſting the left reine of your cauezan ouer the horſes right ſhoulder, you ſhall beare it vnder your thumbe, with the reines of the bit in your left hand; and the right reines of the cauezan you ſhal caſt ouer the horſes left ſhoulder, and beare it with your rod in your right hand, and ſo trot him forth the firſt morning out-right a mile or two in the high way, making him onely feele and grow acquainted with the bit, and onely making him now & then ſtop and retire, and gathering vp his heap into a due place, and faſhioning his reyne with all the beautie and comelineſſe that may be, which done, the next day you ſhall bring him to his large rings, and as was before ſhewed, there make him perfect with the bit, as you did with the ſnaffle, firſt in trotting, then in gallopping of the ſame; then make him ſtop, retire, aduance, yerke behind,

and

and turne vpon either hand, with a great deale more perfectneſſe, and more grace then was formerly done with the trench, which is an eaſie labour, in as much as the bit is of much better commaund, and brings more comelineſſe to the horſes motions, is alſo a greater helpe, a ſharper correction, and a cheriſher of more comfort then any before vſed. And thus in the firſt moneth you may make any horſe perfect vpon the trene in the leſſons before ſpoke of, ſo in the ſecond moneth you may make the ſame Leſſons a great deale more perfect vpon the bit, and ſo preſume in two moneths to haue a perfect ground horſe, fit eyther for Souldier or Schollar, that hath any good Rules of Horſeman-ſhip in him.

Of the turning Poſt.

Now foraſmuch as the Art of turning in horſes is of great difficulty, and ought of all Leſſons to be moſt elaborate, I wil ſpeake a little further thereof, and ſhew you the practiſe of theſe preſent times, for the beſt accompliſhment of the ſame, without ſtirring vp euil motions in the Horſe, whence Reſtiueneſſe and other vilde errours do grow; for it is certaine that euery Horſe naturally deſireth neither offence, nor to offend; but the raſh diſcretion of ignorant Horſe-men, which wil compell a Horſe to do, before he know what, or how to do, is the begetting of thoſe euils which are hardly or neuer Reclaimed: for a horſe is like an ill brought vp boy, who hauing learnt drunkenneſſe in his youth, wil hardly bee ſober in his age, and hauing once got a knauiſh quality, though hee bee neuer ſo much puniſhed for the ſame, will yet now and then ſhewe that the Remembrance is not vtterly extinguiſhed: and foraſmuch as in this Leſſon of ſtrait turnes, there is ſo much curious hardneſſe, that a Horſe is moſt ſubiect to Rebel, and learne many euils thereby, therefore to preuent all thoſe euils, you ſhall

ſhall cauſe a ſmooth ſtrong poſt to be wel ſtamm'd and fixed in the earth in the midſt of the ſtrait Ring, at the very point and center thereof; then cauſing a foot-man to ſtand at the poſt, you ſhal giue him the right Reine of your cauezan, which you ſhal make him hold about the poſt, and ſo walke or trot your horſe about the ſame, on your right hand as long as you pleaſe; then taking vp the right Reine giue him the left Reine, and do as much vpon the left hand, and thus change from hand to hand, as oft as you ſhal think conuenient, till you haue brought your horſe to the abſolute perfection of euery turne, the poſt being ſuch a guide and board vnto the horſe, that albeit the Horſeman were of himſelfe vtterly ignorant, yet it is impoſſible the horſe ſhould eyther diſorder or diſobey his Riders purpoſe.

Of manaing.

When your Horſe can thus perfectly ſet euery ſeuerall turne, eyther ſtrait or open with his bit, you ſhall then teach him to manage, which is the only poſture for the vſe of the ſword on horſe-backe; and you ſhall do it in this manner: Firſt, cauſe ſome by-ſtander to pricke vp in the earth two riding Rods, about twenty or forty yards, or more, as you thinke good, diſtant one from the other; then walke your horſe in a ſtrait turne or Ring about, the firſt on your Right hand, and ſo paſſing him in an euen furrow downe to the other Rod, walke about it alſo in a narrow Ring on your left hand, then thruſt him into a gentle gallop downe the euen furrow, til you come to the firſt Rod, and there making him as it were, ſtop and aduance without any pauſe or intermiſſion of time, thruſt him forward againe, and beate the turne *Terra, Terra*, about it on your Right hand, then gallop forth right to the other Rod, and in the ſame manner beate the turne about on your left hand: and thus doe as

oft as you ſhall thinke it conuenient for your owne practice, and the horſes ſtrength.

Diuerſities of manages.

Now of theſe manages our ancient maſters in horſemanſhip haue made diuers kindes, as manage with Reſt, and manage without Reſt; manage with ſingle turnes, & manage with double turnes, which indeed doth rather breed confuſion, then vnderſtanding in either the horſe or horſeman: therefore for your better knowledge I wil reduce them only but to two kinds: that is manage open and manage cloſe: your open manage is that which I ſhewed you before, when you turne *Terra, Terra*, which is the moſt open of all ſtrait turnes: and your cloſe manage is when you turne vpon the *incaualare*, or *chambetta*, which are the cloſeſt of all turnes, and may bee done as before I ſhewed, in a flying manner, euen vpon one foot, which although it be artfull, yet it is not ſo glorious and ſafe for the Souldiers practice, onely this you may be moſt aſſured of, that when a horſe can manage vpon both theſe turnes, he may manage without more inſtruction, vpon any other turne whatſoeuer.

Of the carere.

When your Horſe is perfect in the manages before-ſayd, you may then paſſe a *carere* at your pleaſure, which is to run your horſe forth-right at his full ſpeed, and then making him ſtop quickly, ſuddainly, firme, and cloſe on his buttocke: in which leſſon there needeth little inſtruction, but onely ſome few obſeruations, as firſt, that you make not your *carere* too long, whereby the horſe may be weakened, nor too ſhort, whereby his true winde and courage may be vndiſcouered, but competent and indifferent, as about foure or fiue ſcore yards at the moſt: then that you ſtart him gently without affright: and laſtly, that you firſt giue him a little warning with your bridle hand, and then ſtop him firmely and ſtrongly; which place of

ſtop,

ſtop, if it be a little bending downeward, it is a great deale the better. And thus in theſe leſſons already ſhewed you, conſiſteth all the full perfection of a horſe for ſeruice in the wars, which any painefull man may bring his horſe wel vnto in leſſe then three moneths, how euer our ancients in former times haue beene blinded, and in the ſame practice, haue waſted two yeares ere they brought it to perfection.

Horſes for pleaſure.

Now foraſmuch as to the Art of Riding belongeth diuers other ſalts and leapes, right pleaſant and curious to behold, and though not generally vſed in the Wars, yet not vtterly vſeleſſe for the ſame, and ſith they are many times very needfull for the health of mans body, I will by no meanes abridge our Engliſh husbandman of the ſame, but proceed to the Leſſons which are meet for horſes of pleaſure, of which the firſt is to make a horſe bound aloft with all his foure feet from the ground; and you ſhall doe it in this manner: when you haue trotted your horſe forth right a dozen or twenty yards, you ſhal ſtop him, and when he hath aduanced once or twice, you ſhal a little ſtraiten your bridle-hand, and then giue him the cuen ſtroke of both your ſpurs together hard, which at firſt wil but onely quicken and amaze him, but doing it againe and againe, it wil breed other thoughts in him, and he being of ſpirit and mettall (as it is loſt labour to offer to teach a iade ſuch motions) he will preſently gather vp his body, and eyther riſe little or much from the ground, then preſently cheriſh him, and after ſome Reſt, offer him the like againe; and thus doe till you haue made him bound twice or thrice: then make much of him, and doe no more for that day: the next day renue his Leſſon againe, and double his exercite, increaſing ſo day by day, till he come to that perfectneſſe,

Of bounding aloft.

that hee wil bound whensoeuer your Spurs shal commaund him.

Of the Coruet. When your horse can bound perfectly, then you shall teach him the coruet, in this manner: you shal at the corner where two walles ioine together, a little hollow the ground a Horses length or more, and then place a smooth strong post by the side of the hollownesse a horses length likewise from the wall; then ouer against the post fasten an iron Ring in the wal: this done, Ride your horse into the hollow place, and fasten one of the reines of the cauezan vnto the Ring, and the other about the post, then after you haue cherisht your horse, make him aduance, by the helpe of the calues of your legges onely twice or thrice together; then let him stand still, and cherish him; then make him to aduance againe at least a dozen times together; then rest, and after aduance twenty or forty times together, daily increasing his aduancings as he grows perfect therin, til you perceiue that he hath got such a habit therin, that he wil by no meanes presse forward, but keeping his ground certaine, aduance both before and behinde of an equall height, and keepe one iust and certaine time with the motion of your legs, neither driuing slower nor faster, but all after one manner and leisure: but if you finde that hee doth not raise his hinder-parts high enough, then you shall cause a foote-man to stand by you, and as you make him aduance before, so the foote-man by ierking him gently vppon the hinder fillets with his Rod, to raise vp his hinder parts: also this will bring your horse in few dayes to a perfect and braue coruet, so that after you may doe it in any place where you please, without the helpe either of your wall or post, or other by-stander.

Of the gallop Gallard. When your Horse is made perfect in the coruet, and that

that hee will doe it readily and comely, you ſhall at the end of euery third or fourth aduancing, giue him the ſtroake of your ſpurs, and make him bound aloft; then put him to his coruet againe as before, and then make him bound againe; and thus at the end of euery third aduancing ſee you make him bound for the length of a tilt bar, or an ordinary managing furrow; according to the horſes ſtrength: and this is called the *gallop galliard*, which if it be taught a horſe along by the ſide of ſome wall or ſmooth pale, it is ſo much the better, and a great deale fewer diſorders wil ariſe and trouble the Rider.

The next Leſſon you ſhall teach your horſe after the gallop galliard, is the *capriolle* or Goates leape, which is the ſame manner of motion which the coruet is, only it is to be done forward, and much ground gained in the ſalt, and the horſe is to raiſe his hinder parts as high or rather higher then his fore-parts, and to keepe rather a ſwifter then ſlower time in doing of it; therfore when you teach your horſe to doe it, you ſhall bring him into ſome hollow furrow, where the ground is a little deſcending, and turning his head to the deſcent, put him into the coruet temperate and gently; then when you giue him the calues of your legs to raiſe vp his fore-parts, in the ſame inſtant ierke your leg violently forward againe, that hee may not ſticke, but carry his hinder legges after his fore-legges, and let ſome skilfull foot-man ſtanding by your ſide ierke the horſe ouer the fillets with his Rod, & make him raiſe vp his hinder-parts: and thus do without ceaſing, till hee performe your wil nimbly and cunningly, and then forget not to cheriſh him and giue him al comfort poſſible. And this leſſon and the other which conſiſt of violent and quicke ſalts or leapes, would euer be practiſed the firſt in the morning whileſt a horſe is freſh and lusty,

Of the Capriolle.

lusty, for to put him to them after his fire edge is taken away, will but bring him to a loathing of his instruction, or at the best to doe them but slouenly, heauily, and vnwillingly.

Of going side. There is also another motion which is pleasing to the eye, though it bee very labour some to the body, which is to make a horse goe side-long of which hand soeuer the Rider is disposed, and is very necessary in the wars, because it is the auoyding of any blow comming from the enemy. This motion when you intend to teach your Horse, you shall draw vp your bridle-hand somewhat strait, and if you determine to haue him goe a side to your Right hand, lay your left Reine close to his necke, and the calue of your left legge close to his side, and as you did in the *Incaualare*, make him lap or put his left legge ouer his Right, then turning your Rod backeward, and ierking him gently on the left hinder thigh, make him bring his hinder parts to the Right side also, and stand in an euen line as at the first, then make him remoone his fore-parts more then before, so that he may stand as it were crosse ouer the euen line, and then make him bring his hinder parts after, and stand in an euen line againe: and thus doe till by long practise hee will moue his fore-parts and hinder parts both together, and goe side-long as far as you please, then cherish him: And if you will haue him goe towards your left hand, doe as you did before, vsing all your *helpes* and *corrections* on the Right side onely. And thus much I thinke is sufficient to haue spoke touching all the seuerall lessons meet to be taught to any horse whatsoeuer, whether he be for seruice or for pleasure, and which being performed artfully, carefully, and with patience, you may presume your horse is compleat and perfect, the rather sith

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no man can finde out any inuention, or teach any other motions to a horſe, which may be good and comely, but you ſhal eaſily perceiue, that they are Receiued from ſome one of theſe already Rehearſed.

Now if you ſhal be called to Ride before a *Prince*, you muſt not obſerue the liberty of your owne will, but the ſtate of the *perſon* before whom you Ride, and the grace of the horſe which you Ride: and therefore being come into the Riding place, you ſhall chuſe your ground, ſo that the *perſon* before whom you are to Ride may ſtand in the midſt thereof, ſo as he may wel behold both the paſſage of the horſe to him and from him: then beeing ſeated in a comely *order*, and euery ornament about you handſome and decent, you ſhall put your horſe gently forth into a comely trot, and being come againſt the *perſon* of eſtate, bow your body downe to the *creſt* of your horſe, then Raiſing your ſelfe againe, paſſe halfe a ſcore yards beyond him, and there marking out a *narrow ring*, thruſt your horſe into a gentle gallop, and giue him two or three managing turnes in as ſhort ground as may be, to ſhew his nimbleneſſe and Readineſſe: then vpon the laſt turne, his face being towards the *great perſon*, ſtop him comely and cloſe, and make him to aduance twice or thrice; then hauing taken breath, put him into a *gallop galliard*, and ſo paſſe along the length of the euen *furrow* with that ſalt, making him do it alſo round about the *ring*: then his face being toward the Prince, ſtop him and giue him freſh breath, then thruſt him into the *Capriole*, now and then making him yerke out behind, yet ſo as it may be perceiued it is your will, and not the horſes malice: and hauing gone about the Ring with that ſalt, and his face brought to looke vpon the *Prince*, ſtop him againe and giue him breath: Then drawing neerer

Riding before a Prince.

Of the Caragolo.

to the Prince, you ſhall beat the turne *Terra, Terra*, firſt in a pretty large compaſſe, then by ſmal degrees ſtraitning it a little and a little, draw it to the very center where you may giue two or three cloſe flying turnes, and then changing your hands, vndoe all that you did before, til you come to the Rings firſt largeneſſe; then the horſes face being direct vpon the Prince, ſtop him, and put him into a coruet, and in that motion hold him a pretty ſpace, making him doe it firſt in an euen line, firſt to the right hand, then to the left, now backeward, then forward againe: and thus hauing performed euery motion orderly and comely, bowe downe your body to the Prince, and ſo depart.

To ride for Recreation.

But if you intend to Ride onely for Recreation, then you ſhall marke what Leſſon your horſe is moſt imperfect in, and with that leſſon you ſhal euer when you Ride both begin and end; after it you ſhall fall to thoſe Leſſons which are to your ſelfe moſt difficult, and by the practice of them bring your ſelfe to a perfectneſſe, then conſequently to all other Leſſons, repeating (as it were) euery one ouer more or leſſe, leaſt want of vſe breed forgetfulneſſe, and forgetfulneſſe vtter ignorance: but if your Recreation in Riding be tied to any ſpecial rules of health, and that your practice therein proceede more from the commandement of your Phyſitian then your pleaſure, then I would wiſh you in the morning firſt to begin with a ſtirring or rough leſſon, as the *gallop galliard, bounding*, or ſuch like, which hauing a little ſtirred your blood, and made it warme, you ſhal then calme it againe with a gentle manage, or the galloping of large Rings: then to ſtir your ſpirits againe, to bring the ſtone downe, or procure appetite, paſſe into the *capriole* or *coruet*; and then to make quiet thoſe mooued parts,

ſet

set the turne called *Terra, Terra*, the *incanalare*, and such like. And thus one while stirring your blood, & another while moderately allaying such stirring, you shall giue your body that due and proper exercise which is most fit for health and long life. Many other wayes this Recreation may be vsed for the good of a mans body, which because particular infirmities must giue particular Rules how and when to vse it, I wil at this time speake no further thereof, but refer the exercise to their owne pleasures which shal practice the same, and to the good they shall finde in the practice.

Chap. 3.

Of the breeding of all sorts of Horses fit for the Husbandmans vse.

The mindes of men being swaied with many various motions, take delight sometimes to be Recreated rather with contemplatiue delights, then with actiue pleasures; and there is strong Reason therefore, because disability of body, or affaires of the Kingdome or Common-wealth, may take a man from those pre-occupations, which otherwise might stir him to more labourious exercise: and of these contemplatiue Recreations, I can prefer none before that Gentlemanly and beneficial delight of breeding creatures meet for the vse of man, and the good of the Common-wealth wherein he liueth, and of these breedings I cannot esteeme any so excellent, as the breeding of Horses, both for the pleasure we gaine thereby in our owne particular seruice, and also for the strength, defence, and tillage of the kingdome.

The breeding of Horses.

He therfore that suteth his Recreation to the breeding of horses, must first haue respect vnto the ground whereon he liueth or enioyeth; for euery ground is not meete

to

to breed on, but ſome too good, ſome too bad: ſome too good, becauſe they may be exhauſted to a more beneficial commodity, horſes hauing a world of caſualties attending on them, and many yeares before the true profite doth ariſe; and ſome too bad, becauſe the extreame barrenneſſe of the ſame will deny competent nouriſhment to the thing bred, and ſo to the loſſe of time and profit adde mortality.

Grounds to breed on.

The grounds then meete to breede horſes on, would neyther be extreame fruitfull, nor extreame barren, but of an indifferent mixture, yeelding rather a ſhort ſweete burthen, then a long, rich and fruitfull; it would rather lie high then low, but howſoeuer firme and hard vnder the foote; it would bee full of Mole-hils, vneuen treadings, hils, and much craggineſſe, to bring colts to nimbleneſſe of foote; it would haue good ſtore of freſh waters, an open ſharpe ayre, and ſome conuenient couert; and this ground is beſt if it be ſeuerall and incloſed, yet may be bred vpon though it bee open and in common, onely ſome more carefulneſſe to bee looked for, a little before, and in the time of Foaling. Nay, the grounds which are neyther ſeuerall nor common, are very good alſo to breed on, and thoſe be your teathering grounds, which we call particular grounds; for though they bee proper commonly to one man, yet they are not diuided nor eaten otherwiſe then at the owners pleaſure: And theſe teathering grounds are as good as any grounds for the firſt nouriſhing of a Foale, if they be amongſt Corne grounds, or any graine except peaſe onely.

Diuiſion of grounds.

If you haue much ground to breed on, you ſhall diuide it into many paſtures, the leaſt and barrenneſt for your Stallion to Run with your Mares in, thoſe which haue leaſt danger of waters are for your Mares to foale in the

the fruitfullest and of best growth for your Mares to giue milke in, and the most spacious and vneuennest to bring vp your Colts in after they are weaned.

For the choyce of a good Stallion, and which is best for our Kingdome, opinion swayeth so far, that a man can hardly giue well-receiued Directions: yet surely if men wil be Ruled by the truth of experience, the best Stallion to beget horses for the wars in the *Courser*, the *Iennet*, or the *Turkes*; the best for coursing and running is the *Barbary*; the best for hunting is the *Bastard courser*, begot of the *English*; the best for the Coach is the *Flemmish*, the best for trauaile or burthen is the *English*, and the best for ease is the *Irish-hobby*. Choice of Stallion, and which are best.

For the choyce of *Mares* you shal greatly respect their shapes and mettals, especially that they bee beautifully fore-handed, for they giue much goodnesse to their Foales: and for their kinds, any of the *Races* before spoken of is very good, or any of them mixt with our true English *Races*, as *Bastard-courser Mare*, *Bastard-Iennet*, *Bastard-Turke*, *Barbary*, *&c.* Choyce of Mares.

The best time to put your Stallion & Mares together, is in the middle of *March*, if you haue any Grasse, as you should haue great care for that purpose, and one foale falling in *March*, is worth two falling in *May*, because he possesseth, as it were, two winters in a yeare, and is therby so hardned, that nothing can (almost) after impaire him; and the best time to take your horse from the Mares againe, is at the end of *April*, or middle of *May*, in which you shal note, that from the middle of *March*, till the midst of *May*, you may at any time put your Stalions to your Mares, and a moneths continuance is euer sufficient: prouided euer, as neere as you can, that you put them together in the increase of the Moone; for Foales When to put them together.

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got in the wane are not accounted ſtrong or healthfull.

Of couering Mares.

For couering of Mares, it is to be done two wayes, out of hand, or in hand; out of hand, as when the horſe and Mares run together abroad, as is before ſayd, or turned looſe into ſome empty barne for three nights one after another, which is the ſureſt and the ſafeſt way for a Mares holding; or in hand, early in a morning, and late at an euening two or three dayes together, when you bring the horſe to the Mare, and make him couer her once or twice at a time, holding him faſt in your hand, and when the act is done, leade him backe to the ſtable; and in this act you ſhall euer obſerue, as ſoone as the horſe commeth from her backe, preſently to caſt a payle of cold water on her hinder parts, or elſe to chaſe her ſwiftly vp and downe, for feare by ſtanding ſtill ſhe caſt out the ſeed, which is very ordinary.

To know if a Mare hold.

To know whether your Mare hold to the horſe or no there be diuerſe wayes, of which the beſt is by offering her the horſe againe at the next increaſe of the Moone, which if ſhe willingly receiue, it is a ſigne ſhe held not before; but if ſhe refuſe, then it is moſt certaine ſhee is ſped: or if you poure a ſpoonefull of cold vinegar into her eare, if ſhe ſhake onely her head, it is a ſigne ſhe holds, but if ſhe ſhake head, body and all, then truly it is a ſigne that ſhe doth not hold: Laſtly, if after ſhe is couered you ſee her ſcoure, her coat grow ſmooth and ſhining, and that ſhe doth (as it were) renue and increaſe in liking, then it is a ſigne ſhe holds: but if ſhe hold at a ſtay without any amendment, then offer the horſe againe, for ſhe is not ſerued.

To conceiue Male-foales.

To make your Mares conceiue moſt male foales, you ſhall be ſure to keepe your Stallion proude, and your Mare poore, that his luſt maiſtering hers, he may onely be

be predominant and chiefe in the action: many other rules fancie deuiſeth, but they erre in their endes, and I would by no meanes haue this diſcourſe capable of any vncertainty.

If you haue any aduantage giuen you by friendſhip, or otherwiſe, whereby you may haue a Mare at the preſent very well couered, onely yours is not yet ready for the horſe, you ſhall in this caſe to prouoke luſt in her, giue her to drinke good ſtore of clarified hony and new milke mixt together, and then with a buſh of nettles all to nettle her priuy parts, and then immediately offer her the horſe. To prouoke luſt.

To keepe your Mares from barrenneſſe, and to make them euer apt to conceiue foales, you ſhal by no meanes feed them too extreame fat, but keepe them in a middle ſtate of body, by moderate labour, for the leaner they are when they come to take the horſe, the much better they will conceiue. To keepe Mares from barrenneſſe.

After your Mares haue beene couered, and that you perceiue in them the markes of conceiuing, you ſhall let them reſt three weekes or a moneth, that the ſubſtance may knit; then after moderately labour or trauell them, till you ſee them ſpring, and then turne them abroad, and let them runne till they foale; for to houſe them after is dangerous and vnwholeſome. Ordering Mares after couering.

If your Mare be hard of foaling, or wil not cleanſe after ſhe hath foaled, you ſhall take a pint of running water, wherein good ſtore of Fennel hath bene boyled, and as much ſtrong, old, ſweet wine, with a fourth part of the beſt ſallet oyle, and hauing mixt them well together, being but luke-warme, poure it into her noſtrils, and then hold and ſtop them cloſe, that ſhe may ſtraine her whole body, and it will preſently giue her eaſe. A helpe for Mares after foaling.

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Ordering Mares after foaling.

As ſoone as your Mare hath foal'd, you ſhall remoue her into the beſt graſſe you haue, which is freſh and vnfoiled, to make her milke ſpring; and if it be early in the yeare, you ſhall haue care that there be good ſhelter in the ſame, and there let her nouriſh her foale moſt part of the Summer following.

Weaning of foales.

As touching the weaning of foales, though ſome vſe to weane them at *Michaelmas*, or *Martilmas* following, out of a ſuppoſition that the winter milke is not good or wholeſome; yet they are much deceiued; and if you can by any conuenient meanes (ſauing greater loſſes) let your foales run with their Dammes the whole yeare, euen till they foale againe; for it will keepe the foale better in health, in more luſt, and leſſe ſubiect to tenderneſſe.

Ordering after the weaning.

When you intend to weane your foales, you ſhall take them from their Dammes ouer-night, and driue them into ſome empty houſe where they may reſt, and the Mares be free from their noyſes: then on the morning following giue to euery foale faſting a branch or two of *Sauen* annointed or rold in butter, and then hauing faſted two houres after, giue him a little meate, as graſſe, hay, or garbadge of Corne, with ſome cleere water, and do thus three dayes together; then ſeeing that they haue forgotten their Dammes, geld ſuch colt-foales as you intend to make Geldings of; and after their ſwellings are paſt, put them with your other colt-foales into a paſture prouided for them by themſelues, and your filly-foales into another by themſelues: which *Paſtures* may either be high Woods, Commons, or ſuch like ſpacious peeces of ground, where they may Run till they bee ready for the Saddle.

Gelding of Colts.

Now, albeit I proportion vnto you this manner of gelding of Foales, yet I would haue you know that the beſt

beſt and ſafeſt way to geld them is, if it may be, vnder the Damme when they ſucke, as at nine or at fifteene dayes of age, if the ſtones appeare, or elſe ſo ſoone as you can by any meanes perceiue them fall downe into the cod, for then there will be no danger of ſwelling, or other miſchiefes, which commonly attend the action. And thus much touching the breeding of Horſes, and the obſeruations due to the ſame, through all the courſes and paſſages thereof, as hath beene found by ancient practiſe and experience, as appeares in my Maſter-Peece.

Chap. 4.

Of horſes for trauaile, and how to make them amble.

THe Husbandman, whoſe occupation is the generall affaires of the Common-wealth, as ſome to the Markets, ſome to the City, and ſome to the ſeates of Iuſtice, muſt neceſſarily bee imployed almoſt in continuall trauaile: and therefore it is meet that he be prouided euer of a good and eaſie trauailing horſe.

The markes whereby he ſhal chuſe a good trauailing horſe, are theſe: hee ſhall be of good colour and ſhape, leane headed, and round fore-headed, a ful eye, open noſtrill, wide iawed, looſe thropled, deepe neckt, thin creſted, broad breaſt, flat chinde, out ribd, cleane limb'd, ſhort ioynted, ſtrong hooued, wel mettald, neither fiery, nor crauing, ſtrong in euery member, and eaſie to mount and get vp vpon; he ſhall follow without haling, and ſtand ſtill when he is reſtrained. The markes of a good trauailing horſe.

Now foraſmuch as there are a world of good horſes, which are not eaſie, and a world of eaſie horſes which are not good, you ſhall by theſe directions following make any horſe amble whatſoeuer: firſt then you ſhall vnderſtand that practiſe hath made diuers men beleeue that To make a horſe amble.

Diuerſe waies of ambling.

that diuerſe wayes they can make a horſe amble, as by gagging them in the mouthes, by tolling them in deepe earth, by the helpe of ſhoes, by gallopping and tyring, or ſuch like, all which are ill and imperfect: yet the truth is, there is but one certaine and true way to compaſſe it, and that is to make a ſtrong garth webbe, flat and well quilted with cotten, foure paſternes for the ſmals of his fore-legs, vnder his knees, and for the ſmals of his hinder legges ſomewhat below the ſpauin ioynts: to theſe paſternes you ſhall fixe ſtrong ſtraps of leather, with good iron buckles, to make ſhorter or longer at pleaſure; and hauing plac't them about his foure legges, you ſhall take two ſeuerall round roapes, of an eaſie twiſt, made with ſtrong loopes at either end, and not aboue eight handfuls in length: and theſe the horſe ſtanding to a true proportion, you ſhall faſten to the foure ſtraps of lether, to wit, one of them to his neere fore-legge and his neere hinder legge, and the other to his farre fore-legge and his farre hinder-legge, which is cald amongſt horſe-men trammeling: with theſe you ſhall let him walke in ſome incloſed peece of ground, till he can ſo perfectly goe in the ſame, that when at any time you offer to chaſe him, you may ſee him amble truly and ſwiftly: then you ſhall take his backe, and ride him with the ſame trammels, at leaſt three or foure times a day, till you find that he is ſo perfect, that no way can be ſo rough and vneuen, as to compell him to alter his ſtroke, or go vnnimbly. This done, you may firſt take away one tramell, then after the other, and onely wreath about vnder his foure fet-lockes thicke and heauy great roles of hay or ſtraw-ropes, and ſo ride him with the ſame a good ſpace after, for it will make him amble eaſie; then cut them away, and ride and exerciſe him without any thing but the ordinary helpe

Of trammelling.

Of wiſping.

helpe of the bridles, and there is no doubt but hee will keepe his pace, to your full contentment and pleaſure.

Now during this time of your teaching, if your horſe ſtrike not a large ſtroke & ouer-reach enough, then you ſhall make the trammell the ſtraiter, but if he ouer-reach too much, then you ſhall giue it more liberty: and herein you ſhall finde that an inch ſtraitning, or an inch inlarging, will adde or abate at leaſt halfe a foote, an whole foote and direct ſtroke. And thus much touching the teaching of any horſe to amble, of what nature or quality ſoeuer hee bee, or how vnapt or vntoward ſoeuer to learne.

Chap. 5.

Of the ordering and dieting of the hunting horſe.

SOme loue hunting for the exerciſe of their owne bodies, ſome for the chaſe they hunt, ſome for the running of the hounds, and ſome for the training of their horſes, whereby they may find the excellency of their goodneſſe and indurance: to him therefore which placeth his delight in the goodneſſe of his horſe, I would wiſh him thus to order and diet him, and he ſhall moſt aſſuredly come to the true knowledge of the beſt worth which is within him; and if in theſe rules which I now ſhew, I be leſſe curious then formerly I haue bene, let no man wonder thereat, but know that *Time* (which is the mother of experience) doth in our labours ſhew vs more new and more neerer wayes to our ends, then at the firſt we conceiued: And though when I firſt practiced this Art, I knew not how to bring a very fat horſe from *Michaelmas* till *Chriſtmas* to ſhew his vtmoſt perfection, I know now in two moneths (though neuer ſo foule)

how to make him fit for any wager, daring now boldly to aduenture on that, with which before I thought almoſt preſent death to offer: thus doth obſeruation and labour finde out the darkeſt ſecrets in Art.

Taking vp of the Hunting Horſe.

To beginne then with the firſt ordering of a hunting horſe, you ſhal know that the beſt time to take him from graſſe is about *Bartholomew-tide*, the day being faire, dry and pleaſant; and as ſoone as he is taken vp, to let him ſtand all that night in any vaſt houſe, to empty his body; the next day ſtable him, and giue him wheat ſtraw if you pleaſe, but no longer in any wiſe; for though the olde Rule is to take vp horſes bellies with ſtraw, yet it ſtraitneth the guts, heats the liuer, and hurteth the wind: therefore let only moderate exerciſe, as riding him forth to water morning and euening, and other airings, doe what you expect ſtraw ſhould: and for his foode, let it be hay that is ſweet, though rough, and eyther old, or at leaſt well ſweat in the Mowe.

Cloathing the Horſe.

After his belly is emptied, you ſhall cloath him firſt with a ſingle cloath, whileſt the heat endureth, and after with more, as you ſhall ſee occaſion require; and when you beginne to cloath the horſe, then you ſhall dreſſe, curry, and Rub him alſo. Now foraſmuch as it is a Rule with ignorant horſe-men, that if they haue but the name of keeping a hunting-horſe, they wil with all care (without any reaſon) lay many cloathes vpon him, as if it were a ſpeciall phyſicke; you ſhall know they are much deceiued therein, and may ſooner doe hurt then good with multiplicy of cloathes: therefore to cloath a horſe right, cloath him according to the weather, and the temper of his body: as thus, if you ſee your horſe be ſlight, ſmooth and well coloured, then cloath him temperately, as with a ſingle cloath of canuaſe or ſacke-cloth at the moſt;

moſt; and if then as the yeare growes colder, you finde his haire riſe or ſtare about his necke, flankes, or outward parts, then you ſhall adde too a woollen cloath, or more if neede require, till his haire fall ſmooth againe, holding it for your rule, that a rough coat ſhews want of cloaths, and a ſmooth coat, cloathing enough: yet if your horſe haue beene cleane fed, taken exerciſe ſufficient, and hath not much glut within him; if then you finde that in the night he ſweateth in his cloathes, then it is a ſigne hee is euer-fed: but if he be foule inwardly, or hath not ſweat formerly, and now ſweates comming to good feeding, then you ſhall augment rather then diminiſh any cloathing, for his foulneſſe but then breaketh out, and being euacuated, he will come to drineſſe of body againe, and ſo continue all the yeare after: and ſurely for an ordinary proportion of cloathes, I hold a Canuaſe cloth, and a cloath of Houſe-wiues wollen to be at full ſufficient for a hunting-horſe.

Of dreſſing the hunting horſe.

A Hunting-horſe would be dreſt in his dayes of Reſt, twice a day, that is, before hee goe to his morning watering, and before he goe to his euening watering: for the manner of his dreſſing, after hee is vncloathed, you ſhall firſt curry him from the tips of the eare to the ſetling on of his taile, al his whole body moſt entirely ouer with an iron combe, his legs vnder the knees and cambrels onely excepted; then you ſhall duſt him, then curry him againe all ouer with a round briſh of Briſtles, then duſt him the ſecond time, then rub all the looſe haires away with your hands wet in cleane water, and ſo rub till the horſe be as dry as at the firſt, then rub all his body and limbes ouer with an haire-cloath: laſtly, rubbe him ouer with a fine white linnen rubber, then picke his eyes, noſtriles, ſheath, cods, tuell, and feete very cleane, and ſo

cloath him, and ſtop him round with wiſpes, if you water within the houſe, otherwiſe ſaddle him after his body is wrapt about in a woollen cloth, and ſo Ride him forth to the water.

Of watering the hunting horſe.

The beſt water for a hunting horſe, is either a running Riuer, or a cleare ſpring, remote from the ſtable a mile, or a mile and a halfe at moſt, and neere vnto ſome plaine peece of ground, where you may ſcope and gallop after hee hath drunke; and as ſoone as you bring your horſe to the water, let him take his full draught without trouble or interruption: then gallop and ſcope him vp and downe a little, and ſo bring him to the water againe, and let him drinke what hee pleaſe: and then gallop him againe: and thus do till you find he will drinke no more, then hauing ſcop't him a little, walke him with all gentleneſſe home, and there cloath him vp, ſtop him round with great ſoft wiſpes, and ſo let him ſtand an houre vpon his bridle, and then feed him.

Of feeding the hunting horſe

To ſpeake firſt of the food for hunting horſes, the moſt ordinary is good ſweete ſound oates, neither throughly dried with age, or elſe on the kilne, or in the Sun, and if your horſe be either low of fleſh, or not of perfect ſtomack, if to two parts of thoſe oates you adde a third part of cleane old beanes, it ſhall be very good and wholſome, and if your horſe be in diet for a match, and haue loſt his ſtomack, if then you cauſe thoſe beanes to be ſpelted vpon a milne, and ſo mixt with oats it wil recouer him. The next food, which is ſomwhat ſtronger & better, is bread thus made: take two buſhels of good cleane beanes, and one buſhell of wheate, and grinde them together; then through a fine Raunge, bolt out the quantity of two pecks of pure meale, and bake it in two or three loaues by it ſelfe, and the reſt ſift through a meale ſiue, and knead

knead it with water and good ſtore of Barme, and ſo bake it in great loaues, and with the courſer Bread feede your horſe in his reſt, and with the finer againſt the daies of ſore labour. Now for the houres of his feeding, it ſhal bee in the morning after his comming from water, an houre after high noone: after his comming from his euening water, and at nine or ten of the clocke at night vpon the dayes of his Reſt, but vpon the dayes of his exerciſe, two houres after he is throughly cold inwardly and outwardly, and then after according to the houres before mentioned. Laſtly, for the proportion of food, you ſhall keepe no certayne quantity, but according to the horſes ſtomacke, that is to ſay, you ſhall feede him by a little at once, ſo long as he eates with a good appetite, but when hee begins to trifle or fumble with his meate, then to giue him no more. Now for his hay, you ſhal ſee that it be dry ſhort vplandiſh hay, and ſo it be ſweete, reſpect not how courſe or rough it is, ſith it is more to ſcoure his teeth and coole his ſtomacke, then for any nouriſhment expected from it.

The exerciſe of the horſe.

Touching the horſes exercise, which is only in the following of the hounds, you ſhall be ſure to traine him after thoſe which are moſt ſwift & ſpeedy, for ſo you ſhall know the truth, and not be deceiued in your opinion. Touching the dayes, it ſhal be twice a weeke at leaſt, but moſt commonly thrice. As for the quantity of his exerciſe, it muſt be according to his foulenesſe or cleaneneſſe: for if he be very foule, you muſt then exercise moderately to breake his greaſe: if halfe foule, halfe cleane, then ſomewhat more to melt his greaſe; and if altogether cleane, then you may take what you pleaſe of him (prouided that you do nothing to diſcourage his ſpirits, to abate his mettall, or to lame his limbes) and after euery

dayes exercise be assured to giue him either the same night, or the next day following, something by way of scouring or otherwise, to take away the grease formerly melted, by meanes whereof you shall bee euer sure to keepe your horse in all good health and perfection.

The scouring of the horse.

The best and most excellentest way to scoure or purge your horse from all grease, glut or filthinesse within his body, which is a secret hitherto was neuer either sufficiently taught, or perfectly learned, is to take of Anniseseeds three ounces, of Cummine-seeds six drammes, of Carthamus a dramme and a halfe, of Fennegreeke-seed one ounce two drammes, of Brimstone one ounce and a halfe, beate all these to a fine powder, and searse them; then take of sallet oyle a pinte and two ounces, of hony a pound and a halfe, and of white wine foure pints, then with as much fine white meale as wil suffice, make all into a strong stiffe paste, and kneade and worke it well: this paste keepe in a cleane cloth, for it will last long, and after your horse hath bene hunted, and is at night or in the morning exceeding thirstie, take a ball thereof as much as a mans fist, and wash and dissolue it in a gallon or two of cold water, and it will make the water looke white like milke: then offer it the horse to drinke in the darke, least the colour displease him: if he drinke it, then feede him; but if he refuse to drinke it, yet care not, but let him fast without drink till he take it, which assuredly he wil doe in twice or thrice offering, and after once he hath taken it, be then assured he will forsake any other drinke for it: of this drinke your horse can neuer take too much, nor too oft, if he haue exercise: otherwise it feeds too sore. For all inward infirmities whatsoeuer it is a present remedy: therefore I would not wish any horseman of vertue at any time to be without it, and being

ing once made, it will laſt three or foure moneths at leaſt.

After your horſe hath bene exerciſed either with hunting, running, traine-ſents, or otherwiſe: you ſhall euer coole him well in the field before you bring him home: but being come to the ſtable, you ſhall neither waſh nor walke, but inſtantly houſe him: giue him ſtore of freſh litter, and rub him therewith, and with dry cloathes, till there be not a wet haire about him, then cloath him with his ordinary cloathes, and wiſpe him round: then caſt another ſpare cloth ouer him, which you may bate at your pleaſure, and ſo let him ſtand till it be time to feed him. And thus you may keepe any hunting horſe either for match or otherwiſe, in as good ſtate and ſtrength as any horſe-man in this Kingdome, though he exceed you farre both in reputation and experience. Ordering a horſe after exerciſe.

Chap. 6.

Of the ordering and dyeting of the running horſe.

IF any Husbandman haue his minde taken vp onely with the delight of running horſes, which is a Noble ſport, and though not of ſo long indurance, yet equall with any before ſpoke of, he ſhall for the bettering of his knowledge giue to his memory theſe few rules following, by which he ſhal rightly order and dyet him.

Firſt, for his taking vp from graſſe (for there for order ſake we muſt firſt begin) it ſhall be at the ſame time of the yeare, and after the ſame manner that you tooke vp your hunting horſe, and till you haue enſeamed him, hardned his fleſh, taken away his inward greaſe, and brought him to a good perfection of winde, you ſhall cloath him, dreſſe him, water him, feed him, exerciſe him, purge him, and order him after labour, in all poynts and all things as you did your hunting horſe. Of his taking vp.

Of clothing him.

When he is thus cleane of body and winde, you ſhall then lay on him ſome more Cloathes then you did on your Hunting horſe, to purge his body a little the more, and to make him the more apt to ſweate, and euacuate humours as they ſhall grow: the ordinary quantity wherof would be a warme narrow woollen cloath about his body, on either ſide his heart, then a faire white ſheet, a woollen cloth aboue it, and a canuaſe cloath or two aboue it, and before his breaſt a woollen cloth at leſt two double: he would continually ſtand vppon cleane litter, and haue his ſtable very darke, and perfumed with Iuniper, when as the ſtrength of his dung ſhall annoy it.

Of dreſſing him.

For his dreſſing, it ſhal be in all points done as you did to your hunting horſe, onely to dreſſe him once a day is ſufficient, and that euer in the after-noone: but for rubbing his limbes or body with dry clothes or wiſpes, you ſhall doe that as often as you come into the ſtable, prouided that you turne but his cloathes vp, but not take them from his body.

Of watering him.

You ſhall water your Running horſe, as you watered your hunting horſe, and giue him the ſame exerciſe after it, only you ſhall not bring him into the ſtable of at leaſt an houre or more after he is watered.

Of feeding him.

The beſt foods for your Running horſe, is either good ſweete oates well dryed, ſumned, and beaten, or bread made of two parts wheate, and but one part Beanes, and boulted, and ſifted, and knodden, as was before ſhewed: onely if you adde to your better ſort of bread the whites of twenty or thirty egges, and with the barme a little Ale alſo, it wil be much the better; for you ſhall not reſpect how little water you vſe at all: the houres you feed in, and the quantity of the food ſhall be the ſame, and in the ſame manner as was mentioned before, for the hunting

hunting horſe, yet with theſe obſeruations, that if your horſe be very leane, ſickly, & haue a weake ſtomack, that then you may as before is ſhewed, giue him with his oats a few ſpelted beanes, or elſe waſh his oates in ſtrong Ale or Beere, or in the whites of a couple of egges.

Touching his exerciſe, it conſiſteth in two kindes, the one ayring, the other courſing: Ayring is a moderate and gentle Exerciſe, which you ſhall vſe morning and euening, by riding or leading your horſe a foot pace (but Riding is better, and leſſe in danger of cold) in the morning after his water vp to the hils, and in the euening after his water by the Riuers ſide, by the ſpace of an houre or two together; and before you leade him forth to aire, you ſhall be ſure to giue him a rere egge broken into his mouth, as ſoone as his Bridle is put on, for it wil increaſe winde: and this ayring you ſhal by no meanes forbeare, but vpon his dayes of purging or ſweating, or when it much raineth, for then to ayre is vnwholſome. Againe, if your Horſe be very fat, you ſhall aire before Sunne riſe, and after Sunne ſet: but if he be leane, then you ſhall let him haue all the ſtrength and comfort of the Sunne you can deuiſe; and during this airing, you ſhall be ſure that your horſe be cloathed very warme, eſpecially before the breaſt, and on each ſide the heart, for cold to a Running horſe is mortall. Of his exerciſe by ayring.

You ſhall courſe your horſe according to his ſtrength and ability of body, that is to ſay, twice a weeke, thrice, or as oft as you ſee cauſe, and you ſhall courſe him ſometimes in his cloathes to make him ſweate, and conſume greaſe, and that muſt be done moderately and gently; and ſometimes without his cloath, to increaſe wind; and that ſhall be done ſharpely and ſwiftly: you ſhal by keeping your horſe faſting the night before, be ſure that his Exerciſe by courſing.

body

body be empty before he do courſe: to waſh his tongue and noſtrils with vinegar, or to piſſe in his mouth ere you take his backe, is very wholeſome: you ſhall leade him in your hand well and warme cloathed to the courſe, and there vncloath him, and rub his limbes well: then hauing courſt him, after a little breath-taking cloath him againe, and ſo Ride him home, there rub him throughly, and let him ſtand till he be fully cold, which perceiued, let his firſt meate you giue him, be a handfull or two of the eares of pollard wheate: then after, his ordinary foode as afore-ſayd.

Of ſweates. There is alſo another exerciſe for your Running horſe, which is, ſweats in his cloathes, eyther abroad or in the houſe: for ſweates in his cloathes abroad, they are thoſe which are taken vpon the courſe, and are formerly ſpoke of, that they muſt bee giuen by a moderate gallopping, no maner Running, and as ſoone as your horſe hath paſt ouer his courſe, and is in a high ſweat, you ſhall inſtantly haue him home, and there lay more cloathes vpon him, and keepe him ſtirring till he haue ſweat ſo in the ſtable an houre or more; then abate his cloathes by little and little, till hee be perfectly cooled and dried, which you muſt further, by Rubbing him continually with drye cloathes, and by laying dry cloathes on, and taking the wet away: but for ſweates in his cloathes, without any exerciſe abroad, you ſhall giue them eyther when the weather is ſo much vnleaſonable, that you cannot goe forth, or when your horſe is ſo much in danger of lamenеſſe, that you dare not ſtrayne him; and you ſhall doe it thus: firſt take a blanket folded and warmed very hot, and wrap it about his body, then ouer it lay two or three more, and wiſpe them round, then ouer them as many couerlids, and pin them faſt and cloſe; then make the horſe

horſe ſtirre vp and downe in the ſtable till hee begin to ſweat; then lay on more cloathes, and as the ſweat trickleth downe his face, ſo rub it away with dry cloathes, till he haue ſweat ſufficiently: then (as before is ſhewed) abate the cloathes by little and little, and rub him in euery part, till he be as dry as at firſt.

After euery courſe or ſweat, you ſhall ſcoure or purge your horſe in the ſame manner, and with the ſame medicine that you did your Hunting horſe; for it is the beſt that can by arte be inuented, being both a purge and a Reſtoratiue, cleanſing and comforting all the parts of a Horſes body: but if you thinke it purgeth not enough, then you ſhall take twenty Raiſins of the Sunne, the ſtones pickt out, and ten Figs ſlit in the midſt, boile them in a pottle of faire running water, till it come to be thick, then mixe it with powder of Lyquoras, Anniſeedes, and Sugar-candy, til it come to a ſtiffe paſte, then make pretty round bals thereof, and roule them vp in butter, and giue your horſe three or foure of them the next morning after his ſweat or courſe, and ride him an houre after, and then ſet him vp warme. Of ſcouring him.

After your horſe hath beene courſt or ſweat, and is as before ſayd, cold and dry, you ſhall then vnbridle him, giue him ſome few wheat eares, and then at an houre or two after, giue him a very ſweet maſh, then ſome bread, after which at his due houre dreſſe him, and giue him when you finde him thirſty ſome cold water, with a ball of your leauen diſſolued into it, and ſo let him ſtand till you feede him for all night. Ordering after exercise.

Courſe not your horſe ſore for a leaſt foure or fiue dayes before you Run your Match, leaſt the ſorenes of his limbes abate him of his ſpeede. Generall Rules for a Running horſe.

Except your horſe be a very foule feeder, muzzle him

not

not aboue two or three nights before his match, and the night before his bloody courſes.

Giue your horſe as wel his gentle courſes as his ſharp courſes vpon the Race he muſt run, that hee may as well finde comfort as diſpleaſure thereon.

In training of your horſe, obſerue not the number of the miles, but the labour fit for your horſe.

Be ſure vpon the match day that your horſe be empty and that he take his Reſt vntroubled, till you prepare to leade him forth.

Shooe your horſe euer a day before you Run him, that the paine of the hammers knocks may be out of his feet.

Saddle your horſe on the Race day in the ſtable before you leade him forth, and fixe both the pannell and the girths to his backe and ſides with Sooe-makers wax, to preuent all dangers.

Leade your horſe to his courſe with all gentleneſſe, and giue him leaue to ſmell to other horſes dung, that thereby he may be inticed to ſtale and empty his body as he goes.

When you come to the place where you muſt ſtart, firſt rub his limbes wel, then vncloath him, then take his Backe, and the word giuen, ſtart him with al gentleneſſe and quietneſſe that may be, leaſt doing any thing raſhly you happen to choake him in his owne winde.

And thus much for the ordering and dyeting of the Running horſe, and the particularities belonging to the ſame.

Chap. 7.

The ordering of the trauailing horſe.

NOw for our Husbandmans trauailing horſe, which is to carry him in his iournies, and about his buſi-

neſſe

neſſe in the Country, he ſhall firſt feed him with the beſt ſweet hay, drye oates, or drye beanes and oates mixt together: in his trauaile he ſhall ſeede him according to his ſtomacke, more or leſſe, and in his Reſt at a certaine proportion, as halfe a pecke at each watering, is vtterly ſufficient. Generall rules for a trauailing Horſe.

In your trauaile ſeede your horſe early, that hee may take his Reſt ſoone.

In trauaile by no meanes waſh nor walke your horſe, but be ſure to rub him cleane.

Water him a mile before you come to your Inne, or more, as ſhal lye in your iourney; or if you faile thereof, forbeare it till next morning, for water hath often done hurt, want of water neuer did any.

Let your horſe neyther eate nor drinke, when hee is extreame hot, for both are vnwholeſome.

When the dayes are extreame hot, labour your horſe morning and euening, and forbeare high-noone.

Take not your ſaddle off ſuddainly, but at leiſure, and laying on the cloth, ſet on the ſaddle again til he be cold.

Litter your horſe deepe, and in the dayes of his Reſt, let it lye alſo vnder him.

Dreſſe your horſe twice a day when he reſts, and once when he trauailes.

If the horſe be ſtoned, let him goe to ſoyle, and be purged with graſſe in May; a moneth is time long enough, and that graſſe which growes in Orchards vnder trees is beſt.

Let blood Spring and Fall, for they are the beſt times to preuent ſickneſſes.

In your iourneying light at euery ſteepe hill, for it is a great Refreſhing and comfort to your horſe.

Before you ſleepe euery night in your iourney, ſee all your

your horſes feet ſtopt with Oxe dung, for it taketh away the heat of trauaile and ſurbating.

Many other neceſſary Rules there are, but ſo depending vpon theſe already ſhewed, that who ſo keepeth them, ſhall not be ignorant of any of the reſt, for they differ more in name then nature.

Chap. 8.

How to cure all generall inward ſickneſſes in horſes, which trouble the whole body: of Feuers of all ſorts, Plagues, infections, and ſuch like.

Sickneſſes in generall are of two kindes, one offending the whole body, the other a particular member: the firſt hidden, and not viſible, the other apparant and knowne by his outward demonſtration. Of the firſt then which offendeth the whole body, are Feuers of all ſorts, as the Quotidian, the Tertian, the Quartan, the Continuall, the Hittique, the Feuers in Autumne, in Summer, or in Winter, the Feuer by ſurfeite, Feuer peſtilent, Feuer accidentall, or the generall plague. They are all knowne by theſe ſignes: much trembling, panting, and ſweating, a ſullen countenance that was woont to bee cheerefull, hot breath, faintneſſe in labour, decay of ſtomacke, and coſtiuneſſe in the body: any, or all of which when you perceiue, firſt let the horſe blood, and after giue him this drinke: Take of *Selladine*, roots and leaues and al, a good handful, as much *wormewood*, and as much *Rew*, waſh them well, and then bruiſe them in a morter, which done, boyle them in a quart of Ale well, then ſtrayne them, and adde to the lyquor halfe a pound of ſweet butter, then being but luke warme, giue it the horſe to drinke: or halfe an ounce of *Diapente* in a pint of Muſkadine.

The Cure.

CHAP.

Chap. 9.

Of the Head-ache, Frenzie, or Staggers.

THe ſignes to know theſe diſeaſes, which indeede are all of one nature, and worke all one effect of mortality, are handing downe of the head, watry eies, rage and reeling: and the cure is, to let the horſe blood in the neck three mornings together, and euery morning to take a great quantity: then after each mornings blood-letting, to giue the horſe this drinke: Take a quart of Ale, and boyle it with a big white bread cruſt, then take it from the fire, and diſſolue three or foure ſpoonefuls of hony into it, then luke warme giue it the horſe to drinke, and couer his temples ouer with a playſter of pitch, and keep his head exceeding warme; let his meate be little, and his ſtable darke. But to giue him the former quantity of *Diapente*, eyther in Muskadine, or hony water, is the beſt cure.

Chap. 10.

Of the ſleeping Euill.

THE ſleeping Euill or Lethargy in horſes proceedes from cold, fleamy, moyſt humours, which binde vp the vitall parts, and makes them dull and heauy: The ſignes are, continuall ſleeping, or deſire thereunto. The cure is, to keepe him much waking, and twice in one weeke to giue him as much ſweet Sope (in nature of a pill) as a Ducks egge, and then after giue him to drinke a little new milke and honey, which is the onely cure at the firſt, for this diſeaſe. But to be certayne, I pray looke in my Maſter-peece, and there you ſhall finde of the infirmity, more largely diſcourſed of, this being but a generall Cure of all Cattle, and not particularly handled, of horſes, as that is. The Cure.

CHAP.

Chap. II.

Of the Falling-euill, Planet-ſtrooke, Night-Mare, or Palſey.

THough theſe Diſeaſes haue ſeuerall faces, and looke as though there were much difference betweene them, yet they are in nature all one, and proceed all from one offence, which is onely cold flegmaticke humours, ingendred about the braine, and benumming the ſenſes, weakning the members, ſometimes cauſing a horſe to fall downe, and then it is called the Falling-euill: ſometimes weakning but one member onely, then it is called Planet-ſtrooke: ſometimes oppreſſing a horſes ſtomack, and making him ſweat in his ſleepe, and then it is called the night-Mare: And ſometimes ſpoiling an eſpeciall member, by ſome ſtrange contraction, and then it is called a Palſey. The cure for any of theſe infirmities, is to

The Cure. giue the horſe this purging pill: Take of *Tarre* three ſpoonfuls, of ſweet butter the like quantity, beate them well together with the powder of *Lyquoras*, *Anneſeedes*, and *Sugar-candy*, till it be like paſte, then make it into three round balles, and put into each Ball two or three cloues of Garlicke, and ſo giue them vnto the horſe, obſeruing to warme him both before and after, and keepe him faſting two or three houres likewiſe, both before and after.

Chap. XII.

Of the generall Crampe, or Conuulſion of ſinewes.

CRamps are taken to be the contracting or drawing together of the Sinewes of any one member: but Conuulſions are when the whole body, from the ſetting on of the head to the extremeſt parts, are generally con-

The Cure. tracted and ſtifned. The cure of eyther is, firſt to chafe and

and rub the member contracted with Vinegar and common oyle, and then to wrap it all ouer with wet Hay, or rotten Litter, or elſe with wet woollen cloathes, eyther of which, is a preſent Remedy.

Chap. 13.

Of any cold or cough whatſoeuer, wet or dry, or for any Conſumption or putrifaction of the lungs whatſoeuer.

A Cold is got by vnnaturall heates, and ſoo ſuddaine coolings, and theſe colds ingender coughs, & thoſe coughs putrifaction or rottenneſſe of the Lungs. The cure therefore for them all in generall, is to take a handful or two of the white and greeniſh moſſe which grows vpon an old Oke pole, or any old Oke wood: and boyle it in a quart of milke till it be thicke, and being cold turned to Ielly, then ſtraine it, and giue it the horſe lukewarme euery morning till his cough end: Or elſe take three quarters of an ounce of the conſerue of *Elicampane*, and diſſolue it in a pint of Sacke, and lukewarme giue it the horſe faſting, then Ride him after it, and ſet him vp warme, feede as ordinary times, thus doe three mornings together. The Cure.

Chap. 14.

Of the running Glanders, or mourning of the Chine.

TAke of *Auripigmentum* two drams, of *Tuſſilaginis* made into powder as much, then mixing them together with Turpentine till they be like paſt, and making thereof little cakes, dry them before the fire: Then take a Chafing-diſh and coales, and laying one or two of the cakes thereon, couer them with a tunnell, and then the ſmoake riſing, put the tunnel into the horſes noſtrils, and let the ſmoake goe vp into his head: which done,

ride the horſe till he ſweat: do thus once euery morning before he be watered, till the running at his noſtriles ceaſe, and the kirnels vnder his chaps weare away.

Chap. 15.

Of Hide bound, or conſumption of the fleſh.

Hide bound or conſumption of the fleſh, proceedeth from vnreaſonable trauaile, diſorderly diet, & many ſurfeits. It is knowne by a generall diſlike and leanneſſe ouer the whole body, and by the ſticking of the skinne cloſe to the body, in ſuch ſort that it wil not riſe from the body. The cure is firſt to let the horſe blood, and then giue him to drinke three or foure mornings together, a quart of new milke, with two ſpoonfuls of hony, and one ounce of *London* Treacle: then let his food be eyther ſodden Barly, warme Graines and ſalt, or Beanes ſpleted in a mill; his drinke Maſhes.

The Cure.

Chap. 16.

Of the breaſt paine, or any other ſickneſſe proceeding from the heart, as the Anticor, and ſuch like.

Theſe diſeaſes proceed from too ranke feeding, and much fatneſſe: the ſignes are, a faultring in his fore-legges, a diſableneſſe to bow downe his necke, and a trembling ouer all his body. The cure is, to let him blood, and giue him three mornings together two ſpoonfuls of *Diapente*, in a quart of Ale or Beere; for it alone putteth away all infection from the heart.

The Cure.

Chap. 17.

Of tyred Horſes.

If your horſe be tyred, eyther in iourneying, or in any hunting match, your beſt helpe for him is to giue him warme

warme vrine to drinke, and letting him blood in the mouth, to ſuffer him to licke vp and ſwallow the ſame. Then if you can come where any Nettles are, to rub his mouth and ſheath well therewith: then gently to Ride him vntill you come to your Reſting place, where ſet him vp very warme; and before you goe to bed, giue him ſixe ſpoonefuls of *Aqua vita* to drinke, and as much prouender as hee will eate. The next morning rub his legges with ſheepes-foote oyle, and it will bring freſh nimbleneſſe vnto his ſinewes.

Chap. 18.

Of diſeaſes in the Stomacke, as Surfeits, loathing of meates or drinke, or ſuch like.

IF your horſe with the glut of prouender, or eating raw food, haue giuen ſuch offence to his ſtomacke, that hee caſteth vp all he eateth or drinketh, you ſhall firſt giue him a comfortable drench, as *Diapente*, or *Treaphamicon* in Ale or Beere; and then keeping him faſting, let him haue no foode, but what hee eateth out of your hand, which would be Bread well bak't and old, and after euery two or three bits a locke of ſweet hay: and his drinke would be onely new milke till his ſtomacke haue gotten ſtrength: and in a bagge you ſhall commonly hang at his noſe ſowre browne-bread ſteept in vinegar, at which he muſt euer ſmell, and his ſtomacke will quickly come againe to his firſt ſtrength.

Chap. 19.

Of foundring in the body.

FOundring in the body is of all ſurfeits the mortalleſt and ſooneſt gotten: it proceedeth from intemperate riding a horſe when he is fat, and then ſudainly ſuffering

him to take cold: then washing a fat horse there is nothing sooner bringeth this infirmity. The signes are sadnesse of countenance, staring haire, stifnesse of limbe, and loosse of belly: and the cure is onely to giue him wholesome strong meat, as bread of cleane beanes, and warme drinke, and for two or three mornings together a quart of Ale brewed with Pepper, and Cynamon, and an ounce of *London* Treacle.

The Cure.

Chap. 20.

Of the hungry Euill.

THe Hungry Euill is an vnnaturall and ouer-hasty greedinesse in a horse to deuoure his meat faster then he can chew it, and is only knowne by his greedy snatching at his meat, as if he would deuoure it whole: the cure is, to giue him to drinke Milke and Wheate-meale mixt together by a quart at a time, and to feede him with prouender by a little and a little, till he forsake it.

The Cure.

Chap. 21.

Of the diseases of the Liuer, as inflammations, obstructions, and consumptions.

THe Liuer, which is the vessell of blood, is subiect to many diseases, according to the distemperature of the blood; and the signes to know it, is a stinking breath, and a mutuall looking towards his body: and the cure is to take *Aristoloch. a longa*, and boyle it in running water, till the halfe part be consumed, and let the horse drinke continually thereof, and it will cure all euils about the Liuer, or any inward conduits of blood.

The Cure

Chap. 22.

Of the diseases of the Gall, and especially of the Yellowes.

FRom the ouer-flowing of the Gall, or rather want of the Gal, which is the vessell of choller, spring many mortall

mortall diſeaſes, eſpecially the Yellowes, which is an extreame faint-mortall ſickneſſe, if it be not preuented betime: the ſignes are yellowneſſe of the eyes and skin, and chiefly vnderneath his vpper lip next vnto his fore-teeth, a ſuddaine and faint falling downe by the high way, or in the ſtable, and an vniuerſall ſweate ouer all the body. The cure is, firſt to let the horſe blood in the necke, in the mouth, and vnder the eyes; then take two penny-worth of Saffron, which being dryed and made into fine powder, mixe it with ſweete butter, and in manner of a pill giue it in bals to the horſe, three mornings together, let his drinke bee warme, and his hay ſprinkled with water: A quart of a ſtrong decoction of *Selladine* helpes it alſo. The Cure.

Chap. 23.

Of the ſickneſs of the Spleene.

THe Spleene, which is the veſſel of Melancholy, when it is ouer-charged therewith, growes painefull, hard, and great, in ſuch ſort that ſometimes it is viſible. The ſignes to know it, is much groaning, haſty feeding, and a continuall looking to his left ſide onely. The cure is, take *Agrimony*, and boyle a good quantity of it in the water, which the horſe ſhall drinke; and chopping the leaues ſmall, mixe them very well with ſweete *May* butter, and giue the horſe two or three good round bals thereof, in the manner of Pilles. The Cure

Chap. 24.

Of the dropſie or euill habit of the body.

THe Dropſie is that euill habit of the body, which ingendred by ſurfeits and vnreaſonable labour, altereth the colours and complexions of horſes, & chargeth the

haires, in ſuch an vnnaturall ſort, that a man ſhall not know the Beaſt, with which hee hath beene moſt familiar. The cure is, to take a handfull or two of *Wormewood*, and boyling it in Ale or Beere, a quart or better, giue it the horſe to drinke luke-warme Morning and euening, and let him onely drinke his water at noone time of the day.

The Cure.

CHAP. 25.

Of the Collicke, Belly-ake, and Belly-bound.

THe Chollicke or Belly-ake is a fretting, gnawing, or ſwelling of the Belly, or great bag, proceeding from windy humours, or from the eating of greene corne or pulſe, hot graines without Salt or labour, or bread dowe bak't: and Belly-bound is when a horſe cannot dung. The cure of the chollicke or Belly-ake is, to take good ſtore of the hearb *Dill*, and boile it in the water you giue your horſe to drinke; but if he cannot dung, then you ſhall boyle in his water good ſtore of the hearbe called *Fenegreeke*, and it will make him looſe without danger or hurting.

The Cure.

CHAP. 26.

Of the Laxe or bloody flixe.

THe Laxe, or bloody flixe, is an vnnaturall looſeneſſe in a horſes body, which not being ſtayed, will for want of other excrement, make a horſe voyd blood onely. The cure is, take a handfull of the hearb *Shepheards-purſe*, and boyle it in a quart of ſtrong Ale, and when it is luke-warme, take the ſeeds of the hearb *Wood-roſe* ſtamp't, and put it therein, and giue it the horſe to drinke.

The Cure.

CHAP.

Chap. 27.

Of the falling of the Fundament.

THis commeth through miſlike and weakeneſſe, and the cure is: Take *Towne-creſſes*, and hauing dryed them to powder, with your hand put vp the Fundament, and then ſtrow the powder thereon, after it lay a little hony thereon, and then ſtrow more of the powder, mixt with the powders of *Comin*, and it helpeth. The Cure.

Chap. 28.

Of Bots and Wormes of all ſorts.

THE Bots and gnawing of Wormes is a grieuous paine, and the ſignes to know them is the horſes oft beating his belly, and trembling, and wallowing on the ground, with much deſire to lie on his backe. The cure is, take the leaues chopt of the hearbe *Sauen*, and mixe it with hony and butter, and making two or three balls thereof, make the horſe ſwallow them downe, and it wil helpe him. The Cure.

Chap. 29.

Of the paine in the Kidnies, paine-piſſe, or the ſtone.

ALL theſe diſeaſes ſpring from one ground, which is onely grauell and hard matter gathered together in the Kidnyes, and ſo ſtopping the conduits of Vrine: the ſignes are onely that the horſe wil oft ſtraine to piſſe, but cannot. The cure is, to take a handfull of *Maydenhaire*, and ſteepe it all night in a quart of ſtrong Ale, and giue it the horſe to drinke euery morning till he be wel: this will breake any ſtone whatſoeuer in a horſe. The Cure.

Chap. 30.

Of the Strangullion.

THis is a ſore ſickneſſe in the horſes yard, and a hot burning ſmarting when he piſſeth: the ſignes are, hee

will piſſe oft, yet but a drop or two at once. The cure is, to boile in the water which hee drinketh, good ſtore of the hearbe *Adayth*, or *Hogs-fennell*, and it will cure him.

The Cure:

Chap. 31.

Of piſſing blood.

THis commeth with ouer trauailing a horſe, or trauelling a horſe ſore in the winter when hee goeth to graſſe. The cure is, take *Ariſtolochia longa*, a handfull, and boyle it in a quart of Ale, and giue it the horſe to drinke luke-warme, and giue him alſo reſt.

The Cure:

Chap. 32.

Of the Colt-euill, mattering of the yard, falling of the yard, ſhedding the ſeede.

ALl theſe euills proceede from much luſt in a horſe: and the cure is, the powder of the hearbe *Auit*, and the leaues of *Rittony*; ſtampe them with white wine, to a moyſt ſalue, and annoynt the ſore therewith, and it will heale all imperfection in the yard: but if the horſe ſhed his ſeede, then beate venice Turpentine and Sugar together, and giue him euery morning a good round ball thereof, vntill the fluxe ſtay.

The cure.

Chap 33.

Of the particular diſe-ſes in Mares, barrennes, conſumption, rage of loue, caſting foales, hardneſſe to foale, and how to make a mare caſt the Foale.

IF you haue your Mare barren, let good ſtore of the hearbe *agnus caſtus* be boyled in the water ſhe drinketh If you would haue her fruitfull, then boile good ſtore of *Mother-wort* in the water which ſhe drinketh: if ſhe loſe her belly, which ſheweth a conſumption of the wombe,

wombe, you ſhal then giue her a quart of Brine to drink, *Mug wort* being boyled therein. If your Mare through pride of keeping grow into too extreame luſt, ſo that ſhe will neglect her food, through the violence of her fleſhly appetite, as it is often ſeene amongſt them, you ſhall houſe her for two or three dayes, and giue her euery morning a ball of butter and *agnus caſtus* chopt together. If you would haue your Mare to caſt a foale, take a handfull of *Dettony*, and boyle it in a quart of Ale, and it will deliuer her preſently. If ſhe cannot foale, take the hearbe *Horſe-mint*, and eyther dry it or ſtampe it, and take the powder or the iuyce, and mixe it with ſtrong Ale, and giue it the Mare, and it will helpe her. If your Mare from former bruſings or ſtroakes be apt to caſt her foales, as many are, you ſhall keepe her at graſſe very warme, and once in a weeke giue her a good warme maſh of drinke: this ſecretly knitteth beyond expectation.

Chap. 34.

Of drinking venome, as horſe-leaches, Hens-dung, or ſuch like.

IF your horſe haue drunke Horſe-leaches, hens dung, feathers, or ſuch like venemous thing, which you ſhal know by his panting, ſwelling, or ſcouring, you ſhall take the hearbe *Sow-thiſtle*, and drying it, beate it into powder, and put three ſpoonfuls thereof into a quart of Ale, and giue it the horſe to drinke.

Chap. 35.

Of Suppoſitaries, Gliſters, and Purgations.

IF your horſe by ſickneſſe, ſtrict dyet, or too vehement trauaile, grow dry & coſtiue in his body, as it is ordinary, the eaſieſt meanes in extremity to help him, is to giue him

him a Suppositary: the best of which is, to take a Candle of foure in the pound, and cut off fiue inches at the bigger end, and thrusting it vp a good way with your hand into his fundament, presently clap downe his taile, and hold it hard to his tuell a quarter of an houre, or halfe an houre: and then giue him liberty to dung; but if this be not strong enough: then you shall giue him a glister, and that is, take foure handfuls of the hearbe *Anise*, and boile it in a pottle of running water, till halfe be consumed, then take the decoction and mixe it with a pint of Sallet-oyle, and a pretty quantity of salt, and with a glister-pipe giue it him at his tuell. But if this be too weake, then giue him a purgation thus. Take twenty *Raisins* of the Sunne without stones, and ten *Figges* slit, boyle them in a pottle of running water, till it come to a gelly, then mixe it with the powder of *Lyquoras*, *Anne-seedes*, and *Sugar-candy*, till it bee like paste, then make it into balls, and role it in sweete Butter, and so giue it the horse, to the quantity of three Hen egges.

CHAP. 36.

Of Neesings and Frictions.

THere be other two excellent helpes for sicke horses, as Frictions and Neesings: the first to comfort the outward parts of the body, when the vitall powers are astonished, the other to purge the head when it is stopt with fleame, cold, or other thicke humours. And of Frictions the best is *vinegar* and *Patch-grease* melted together, and very hot chafed into the horses body against the haire. And to make a horse neese, there is nothing better then to take a bunch of *Pellitory of Spaine*, and binding it vnto a stick, thrust it vp a horses nostrill, and it will make him neese without hurt or violence.

CHAP.

Chap. 37.

Of diſeaſes in the eyes, as watry eyes, blood-ſhotten eyes, dim eyes, moone eyes, ſtroke in the eye, wart in the eye, inflammation in the eye, pearle, pin, web, or haw.

VNto the Eie belongeth many diſeaſes, al which haue their true ſignes in their names, and as touching that which is watry, blood ſhotten, dim, moone, ſtricken, or inflamed, they haue all one cure. The cure is, take *wormewood*, and beate it in a Morter with the gall of a Bull, ſtraine it, and annoint the horſes eyes therewith and it is an approued remedy. But for the Wart, Pearle, Pin or Web, which are euils growne in, and vpon the Eye, to take them off, take the iuyce of the Hearbe *Betin*, and waſh his eyes therewith, and it will weare the ſpots away: For the Haw euery Smith can cut it out. The Cure.

Chap. 38.

Of the Impoſtume in the eare, Pole-euill, Fiſtula, ſwelling after blood-letting, any gald backe, canker in the Witherr, Sitfaſt, wens, Nauel gall, or any hollow vlcer.

THeſe diſeaſes are ſo apparant and common, that they needs no further Deſcription but their names, and the moſt certayne cure is to take Clay of a mud or lome wal, without Lime, the ſtrawes and all, and boiling it in ſtrong vinegar, apply it plaiſter-wiſe to the ſore, and it will of it owne nature ſearch to the bottome, and heale it: prouided that if you ſee any dead or proud fleſh ariſe, that then you eyther eate or cut it away. The Cure.

Chap. 39.

Of the Viues.

FOr the Viues, which is an inflamation of the kirnels betweene the chap and the necke of the horſe: take

pepper

Pepper one penny worth, of *Swines greaſe* one ſpooneful, the iuyce of a handfull of *Rew*, *Vinegar* two ſpoonfuls, mixe them together, and then put it equally into both the horſes eares, and then tye them vp with two flat laces, then ſhake the eares that the medicine may goe downe, which done, let the horſe blood in the necke, and in the temple veines, and it is a certaine cure.

Chap. 40.

Of the Strangle, or any Bile, Botch, or other impoſtume whatſoeuer.

ALl theſe diſeaſes are of one nature, being onely hard Biles or impoſtumes gathered together by euill humours, either betweene the chaps, or elſewhere on the body. The cure is, take *Southernwood*, and dryc it to powder, and with *Barley* meale, and the yolke of an Egge make it into a ſalue, and lay it to the Impoſtume, and it will ripen it, breake it, and heale it.

The Cure.

Chap. 41.

Of the Canker in the Noſe, or any other part of the body.

TO heale any Canker in what part ſoeuer it be: take the iuyce of *Plantaine*, as much *vinegar*, & the ſame weight of the powder of *Allom*, and with it annoynt the ſore twice or thrice a day, and it wil kill it, and cure it.

The Cure.

Chap. 42.

Of ſtanching of blood, whether it be at the noſe, or proceede from any wound.

IF your horſe bleed violently at the noſe, and wil not be ſtayed, then you ſhall take *Bettony*, and ſtampe it in a morter with Bay-ſalt, or other white Salt, & ſtop it into the horſes noſe, or apply it to the wound, & it wil ſtanch it:

it: but if you be ſudainly taken, as riding by the high way or otherwiſe, and cannot get this hearbe, you ſhall then take any woollen cloth, or any felt Hat, and with a knife ſcrape a fine Lint from it, and apply it to the bleeding place, and it will ſtaunch it preſently.

Chap. 43.

Of the diſeaſes in the mouth, as bloody rifts, Igs, Lampas, Camery, inflammation, tongue-hurt, or the Barbs.

IF you find any infirmity in your horſes mouth, as the bloody Rifts, which are chaps or rifts in the palate of the Horſes mouth; the Igs, which a little puſtels or bladders within the horſes lips: the Lampaſſe, which is an excreſſion of fleſh aboue the teeth: the Camery, which is little warts in the roofe of the mouth: Inflamation, which is Bliſters: Barbs, which are two little paps vnder the tongue, or any hurt on the tongue by Bit or otherwiſe: you ſhall take the leaues of *Wormewood*, and the leaues of *Shirtwit*, and beat them in a morter with a little Hony, and with it annoint the ſores, and it wil heale them, as for the Lampaſſe they muſt bee burnt away, which the ignoranteſt Smith can eaſily doe. The Cure.

Chap. 44.

Of paine in the teeth, or looſe teeth.

FOr any paine in the teeth, take *Bettony*, and ſeeth it in Ale or vinegar till a halfe part be conſumed, and waſh all the gums therewith: but if they be looſe, then onely rub them with the leaues of *Elicampane* or *Horſehelme*, after they haue beene let blood, and it wil faſten them.

Chap. 45.

Of the Cricke in the necke.

FOr the Cricke in the necke, you ſhal firſt chafe it with the Friction before ſpecified, and then annoynte and bath

bath it with Sope and vinegar, boyled together.

Chap. 46.
Of the falling of the Creſt, mangines in the Maine, or ſhedding of the haire.

ALL theſe diſeaſes proceede from pouerty, miſſlike, or ouer-riding, and the beſt cure of the falling of the Creſt, is blood-letting, and proud keeping, with ſtore of meate, for ſtrength and fatneſſe euer will rayſe vp the Creſt, but if the maine be mangy, you ſhall annoynt it with Butter and Brimſtone, and if the haire fall away, then take *Southernwood*, and burne it to aſhes, then take thoſe aſhes, and mixing them with common oyle, annoynt the place therewith, and it will bring haire preſently, ſmooth, thicke, and faire.

Chap. 47.
Of paine in the withers.

A Horſes withers are ſubiect to many griefes and ſwellings, which proceed from cold humors, ſometimes from euill ſaddles, therefore if at any time you ſee any ſwelling about them, you ſhall take the hearbe *Hearts-tongue*, and boile it with the oyle of *Roſes*, and very hote apply it to the ſore, and it will aſſwage it, or elſe breake it and heale it.

Chap. 48.
Of ſwaying the Backe, or weakneſſe in the Backe.

THeſe two infirmities are dangerous, and may be eaſed, but neuer abſolutely cured, therefore where you find them, take *Colworts* and boyle them in oyle, and mixing them in a little Beane-meale charge the backe, and it will ſtrengthen it.

CHAP.

Chap. 49.

Of the Itch in the taile, or of the generall Scab and mangineſſe, or of the Farcie.

FOr any of theſe diſeaſes, take freſh greaſe, and yel'ow *Arſnicke*, mixe them together, and where the Mangineſſe or Itch is, there rub it hard in, the ſore being made raw: but if it be for Farcie, then with a knife ſlit all the knots, both hard and ſoft, and then rub in the medicine: which done, tie vp the Horſe, ſo as hee may not come to bite himſelfe, and then after he hath ſtood two or three houres, take old piſſe and ſalt boyled together, and with it waſh away the oyntment, and then put the Horſe to meate; doe thus two or three daies together, prouided allwaies that you firſt let him bloud, and take good ſtore from him, and alſo giue him euery morning a ſtrong ſcouring, or a ſtrong purge, both which are ſhewed before.

Chap. 50.

Of any Halting which commeth by ſtraine, or ſtroke, either before or behinde, from the ſhoulder or hippe, downe to the Hooſe.

THere be many infirmities which make a Horſe halt, as pinching the ſhoulder, wrench in the ſhoulder, wrench in the neather ioynt, ſplatting the ſhoulder, ſhoulder pight, ſtraines in ioynts, & ſuch like: all which, ſince they happen by one accident, as namely, by the violence of ſome ſlip or ſtraine, they may be cured by one medicine, & it is thus. After you haue found where the griefe is, as you may doe by griping and pinching euery ſeuerall member, then where he moſt complaineth, their is his moſt griefe. You ſhall take (if the ſtraine be new) Vinegar, *Bolearmeniake*, the whites of Egges and beane-

flower,

flower, and hauing beaten them to a perfect ſalue, lay them very hot to the ſore place, and it will cure it: but if the ſtraine be old, then take vinegar and butter, and melting them together with wheat bran, make it into a pultis, and lay it to the ſore as hot as may be, and it will without doubt, take away the griefe.

Chap. 51.

Of foundring in the feete.

OF Foundring there be two ſorts, a dry and a wet: the dry Foundring is incurable, the wet is thus to bee helpt. Firſt pare all the ſoales of his feet ſo thin, that you may ſee the quicke, then let him blood at euery toe, and let them bleede well, then ſtop the veine with *Tallow* and *Roſen*, and hauing tackt hollow ſhooes on his feete, ſtop them with *Branne*, *Tarre*, and *Tallow*, as boyling hot as may be, and renue it once in two daies, for a weeke together, then exerciſe him much, and his feete will come to their true vſe and nimbleneſſe.

The Cure.

Chap. 52.

Of the Splent, Curbe, Bone-ſpauen, or any knoble or bony excreſſion, or ring bone.

A Splent is a bony excreſſion vnder the knee or the fore-legge, the Curbe is the like behind the hinder hough, the Spauin is the like on the inſide of the hinder hough, and the Ringbone is the like on the cronet of the hoofe. And the cure is, firſt vpon the top of the excreſſion, make a ſlit with your knife the length of a Barly-corne, or a little more, and then with a fine cornet, rayſe the skinne from the bone, and hauing made it hollow the compaſſe of the excreſſion and no more, take a little lint and dip it into the oyle of *Origanum*, and thruſt it into the

The Cure.

the hole and couer the knob, and ſo let it bride till you ſee it rot, and that Nature caſteth out both the medicine and the core. As for the Ring-bone you ſhal need to ſcarifie and annoynt it with the oyle onely.

Chap. 53.

Of the Mallander, Selander, Paines, Scratches, mellet, mules, crowne-ſcabs, and ſuch like.

FOr any of theſe Sorrances, you ſhall take verdigreaſe, and ſoft greaſe, and grinding them together, to an oyntment, put it in a boxe by it ſelfe: then take Waxe, Hogges-greaſe, and Turpentine, of each alike, and being melted together, put that ſalue into another boxe: then when you come to dreſſe the ſore, after you haue taken off the ſcab and made it raw, you ſhall annoynte it with your greene ſalue of *Verdigreaſe* and freſh greaſe onely for two or three dayes; it is a ſharpe ſalue, and will kill the cankerous humour; then when you ſee the ſore looke faire, you ſhal take two parts of the yellow ſalue, and one part of the greene ſalue, and mixing them together, annoynt the ſore therewith til it be whole, making it ſtronger or weaker as you ſhal find occaſion.

Chap. 54.

Of an vpper Attaint, or nether Attaint, or any hurt by ouer-reaching.

THeſe Attaints are ſtroakes or cuts by ouer-reaching, eyther on the backe ſinew of the fore-legge, on the heeles or nether ioynts, and may be ſafely healed by the ſame former medicine & meane which healeth the *Mallander*, or *Selander*, in the former *Chapter*, onely for your ouer-reaches, you ſhal before you apply your ſalue lay the ſore plaine and open, without hollowneſſe, and

wash it with beere and salt, or vinegar and Salt.

Chap. 55.

Of the infirmities of hooses, as false quarters, loose hooses, casting hooses, hoose-bound, hoose-running, hoose-brittle, hoose-hurt, hoose-sost, hoose hard, or generally to preserue hooses.

THe hoose is subiect to many miseries: as first to false quarters, which commeth by pricking, and must be helpt by good shooing, where the shooe must beare on euery part of the foot but vpon the false quarters onely. If the hoose be loose, annoint it with pitch of *Burgundy*, and it wil knit it: if it be cleane cast off, then pitch of *burgundy* and tallow molten together, wil bring a new: if it be bound or straitned, it must be very well opened at the heeles, the soale kept moyst, and the cronet annoynted with the fat of Bacon and *Tarre*. If the frush of the feete runne with stinking matter, it must be stopt with Soote, Turpentine, and *Bolearmoniake* mixt together: if it be brittle or broken, then annoynt it with pitch and Linseede oyle, molten to a soft salue: if it be soft, then stop it with Sope, and the ashes of a burnt Felt mixt together: if the hooses be hard, lay hote burning Cinders vpon them, and then stop them with tow and tallow: and generally for the preseruing of all good hooses, annoynt them daily with the sward or rinde of fat Bacon.

Chap. 56.

Of the blood spawen, or hough bony, or any other vnnaturall swelling, from what cause soeuer it proceedeth.

THese two sorrances are pustels, or soft round swellings, the first on the inside of the hinder hough, and the other on the very hackle of the hough behind, they

are

are ſoft and very ſore, and the cure is: Firſt to take vp the veine aboue, and let it bleed onely from below, then hauing knit it faſt with two ſhooe-makers ends on both ſides the ſlit, cut the veine in two peeces: then take Linſeede, and bruiſe it in a morter, then mixe it with Cowdung, and heate it in a frying pan, and ſo apply it to the ſwelling only, and if it breake and run, then heale it with a playſter of pitch, and the horſe ſhall neuer be troubled with *Spauen* more: but if the ſwelling come by ſtrayne or bruiſe, then take patch-greaſe, and melting it, annoint the ſore therewith, holding a hote yron neere it to ſinke in the greaſe, then fold a linnen cloath about it, and it will aſſwage all ſwellings whatſoeuer. The Cure.

Chap. 57.

Of winde-Galles.

THeſe are little blebs or ſoft ſwellings on each ſide the Fetlocke, procured by much trauaile on hard and ſtony wayes. The cure is to pricke them, and to let out the ielly, and then drye vp the ſore with a playſter of Pitch. The Cure.

Chap. 58.

Of Enterfairing or Shackle-gall, or any galllings.

ENterfayring is hewing one leg on another, and ſtriking off the skinne: it proceedeth from weakneſſe or ſtraightnes of the horſes pace, and Shackell-gall is any gall vnderneath the Fetlocke. The cure is, to annoynt them with Turpentine and verdigreaſe mixt together, or Turpentine alone, if it rankle not too much. The Cure.

Chap. 59.

Hurts on the Cronet, as the quitterbone or Matlong.

THe Quitterbone is a hollow vlcer on the top of the Cronet, and ſo is the Matlong, and the cure is: Firſt

to taint it with Verdigreaſe vntil you haue eaten out the core, and made the wound very cleane: then you ſhal heale it vp with the ſame ſalues, that you heale the Scratches.

The Cure.

Chap. 60.

Of wounds in the foote, as grauelling, pricking, figge, retait, or cloying.

IF your horſe haue any wound in his foote, by what miſchance ſoeuer, you ſhal firſt ſearch it, and ſee that it bee cleare of any nayle poynt, or other ſplent to annoy it, then waſh it very wel with white Wine and Salt, and after taint it with the oyntment called *Egyptiacum*, and then lay hote vpon the taint, with *Flaxe* hurds, *Turpentine*, *Oyle*, and *Waxe* mingled together, and annoynt al the top of the hoofe and cronet with *Bolearmoniake* and Vinegar: doe thus once a day vntil the ſore be whole.

Chap. 61.

To draw out a Stub or Thorne.

TAke the hearbe *Detany*, and bruiſe it in a morter with *blacke ſope*, and lay it to the ſore, and it wil draw out the ſplent, iron, thorne, or ſtub.

Chap. 62.

Of the Aubury or Tetter.

THe Aubury is a bloody wart on any part of the horſes body, and the Tetter is a cankerous vlcer like it. The cure of both is with an hote yron to ſeare the one plaine to the body, and to ſcarifie the other; then take the iuyce of *Plantaine*, and mixe it with vinegar, Hony, and the powder of *Allom*, and with it annoynt the ſore til it be whole.

The Cure

CHAP.

Chap. 63.

Of the Cords or ſtring-halt.

THis is an vnnaturall binding of the ſinewes, which imperfection, a horſe bringeth into the World with him: and therefore it is certayne it is incurable, and not painefull, but onely an eye-ſore, yet the beſt way to keepe it from worſe inconuenience, is to bathe his lumbs in the decoction of *Colen orts.*

Chap. 64.

Of Spur-galling, or fretting the skinne and haire.

FOr this, there is nothing better then Piſſe and Salt, with which waſh the ſore daily.

Chap. 65.

Of healing any old Sore or Wound.

FReſh Butter, and the hearbe *Ameos* chopt and beaten together to a ſalue will heale any wound, or any old ſore.

Chap. 66.

Of ſinewes being cut.

IF the Horſes ſinewes be cut, take the leaues of wilde *Nepe* or *Woodbine*, and beating them in a morter with *May* butter, apply it to the ſore, and it will knit the ſinewes.

Chap. 67.

Of eating away dead Fleſh.

TAke *Stubwort*, and lap it in a red Docke leafe, and roſt it in the hot cinders, and lay it to the ſore, and it will eate away any dead fleſh. So will Verdigreaſe, burnt Allome, or Lime. The Cure.

Chap. 68.

Of Knots in the ioynts.

PAtch-greaſe applied as is before ſhewed for ſwellings, will take away any hard knots in the fleſh, or vppon the ſinewes.

Chap. 69.

Of venemous wounds, as biting with a mad dog, tuskes of Bores, Serpents, or ſuch like.

FOr any of theſe mortall or venemous wounds, take *Yarrow, Calamint*, and the graines of wheat, and beat them in a morter with water of *Southernwood*, and make it into a ſalue, and lay it to the ſore, and it will heale it ſafely.

Chap. 70.

Of Lice, or Nits.

THis filthineſſe of Vermine is bred in a horſe through vnnaturall diſlike and pouerty: The cure is, take the The Cure. iuyce of *Beets* and *Staueſaker* beaten together, and with it annoynt the horſes body ouer, and it will make him cleane.

Chap. 71.

Of defending a horſe from flyes.

TAke the iuyce of *Pellitory* of *Spaine*, and mixing it with milke, annoynt the horſes belly therewith, and no flyes will trouble him.

Chap. 72.

Of broken bones, or bones out of ioynt.

AFter you haue placed the bones in their true places; take the *Ferne-aſmund*, and beat it in a morter with the oyle of *Swallowes*, and annoint all the member, then ſplent it and role it vp, and in fifteene dayes, the bones will knit and be ſtrong.

CHAP.

Chap. 73.

Of drying vp ſores when they be almoſt whole.

ALlome burnt, vnſleekt *Lime*, the aſhes of an olde ſhooe-ſole burnt, or Oyſter-ſhels burnt, any of theſe ſimply by themſelues, will dry vp any ſore, though neuer ſo moyſt.

Chap. 74.

A moſt famous Receite to make a Horſe that is leane, and full of inward ſickneſſe, ſound and fat in fouretéene dayes, hauing bin often approued of.

TAke of wheate-meale ſixe pound, *Anniſeedes* two ounces, *Commin-ſeedes* ſixe drammes, *Carthamus* one dramme and a halfe, *Fennegreeke-ſeeds* one ounce two drammes, Brimſtome one ounce and a halfe, Sallet oyle one pinte, Honey one pound and a halfe, white Wine foure pints: this muſt bee made into paſte, the hard ſimples beeing pounded into powder, and finely ſearſt, and then kneaded together, and ſo made into bals as bigge as a mans fiſt, then euery watering conſume one of thoſe bals into his colde water, which he drinketh for morning and euening for fifteene dayes together, and if at the firſt hee bee dainty to drinke the Water, yet care not, but let him faſt till he drinke it, and after he beginnes to take it, hee will drinke it with great greedineſſe.

Chap. 75.

How to make a white Starre.

SLit the horſes fore-head the length of your Starre, and then rayſe the skinne vp with a cornet, and put in a plate of Leade as bigge as the Starre, and let it remaine ſo two or three daies together; and then let it out and preſſe downe the skin with your hand, and that haire

will fall away, and white wil come in the place : or to ſcald the face or skinne with a ſower apple roſted, will bring white haire : But to make a blacke ſtarre, or a red ſtarre in a Horſes fore-head, I referre it for you to looke and approoue of in my *Maſter-peece*, which belongeth onely to that for to be ſo exactly diſcourſed of, this being onely a generall Cure of all Cattle.

The end of the Horſe.

The generall Cure and ordering of the Bull, Cow, Calfe, or Oxe

Chap. 1.

Of the Bull, Cow, Calfe or Oxe, their ſhape, breed, vſe, choiſe, and preſeruation.

FOr as much the Male of all Creatures are the principall in the breede and generation of things, and that the fruite which iſſueth from their Seede, participateth moſt with their outward ſhapes, and inward qualities, I thinke fitteſt in this place, where I intend to treat of Horned-cattle and Neate, to ſpeake firſt of the choyſe of a faire Bull, being the breeders principalleſt inſtrument of profit. You ſhall vnderſtand then, that of our Engliſh cattle (for I will not ſpeake of thoſe in *Italy*, and other forreigne Countries, as other Authors do, and forget mine owne) the beſt are bred in *Yorke-ſhire*, *Darby-ſhire*, *Lancaſhire*, *Stafford-ſhire*, *Lincolne-ſhire*, *Gloſter ſhire*, and *Somerſet-ſhire*, though they which are bred in *Yorke-ſhire*, *Darby-ſhire*, *Lanca-ſhire*, and *Staford-ſhire*, are generally all blacke of colour, and though

The Countries for breed.

though they whose blackneſſe is pureſt, and their haires like veluet, are eſteemed beſt; they haue exceeding large hornes, and very white, with blacke tippes; they are of ſtately ſhape, bigge, round, and well buckled together in euery member, ſhort ioynted, and moſt comely to the eye, ſo that they are eſteemed excellent in the market: thoſe in *Lincoln-ſhire* are the moſt part Pide with more white, then the other colours, their hornes little and crooked; of bodies exceeding tall, long and large, leane and thin thighed, ſtrong hooued, not apt to ſurbait, and are indeede fitteſt for labour and daught. Thoſe in *Somerſet-ſhire* and *Gloceſter ſhire*, are generally of a blood red colour, in all ſhapes like vnto thoſe in *Lincoln ſhire*, and fitteſt for their vſes. Now to mixe a race of theſe and the blacke ones together is not good, for their ſhapes and colours are ſo contrary, that their iſſue are very vncomely: therefore I would wiſh all men to make their breeds eyther ſimply from one and the ſame kind, or elſe to mixe *Yorke-ſhire* with *Stafford ſhire*, with *Lancaſhire*, or *Darby ſhire* with one of the blacke races, and ſo likewiſe *Lincolne-ſhire* with *Somerſet-ſhire*, or *Somerſet-ſhire* with *Gloceſter ſhire*.

Of not mixing, and mixing of races.

Now for the ſhape of your Bull; hee would be of a ſharpe and quicke countenance, his hornes the larger the better, his necke fleſhy, his belly long and large, his forehead broad and curled, his eies blacke & large, his eares rough within, and haire like veluet, his muzel large and broad at the vpper lip, but narrow and ſmall at the neather, his noſtril crooked within, yet wide and open, his dew-lap extending from his nether lip down to his foreboothes, large, ſide, thinne and hairy, his breaſt rough and bigge, his ſhoulders large, broad and deepe, his ribs broad and wide, his backe ſtraight and flat, euen to the

The ſhape of the Bull.

ſetting

ſetting on of his tayle, which would ſtand high, his hucklebones round and faire appearing, making his buttockes ſquare, his thighs round, his legs ſtraight & ſhort ioynted; his knees round and big, his hooues or clawes long and hollow, his tayle long and buſh-haired, and his pyzell round, & alſo well haired. Theſe Bul's as they are for breed, ſo they are excellently good for the draught, onely they naturally draw better ſingle, like horſes, then in the yoake, like Oxen: the reaſon as I ſuppoſe being, becauſe they can hardly be match't in an equall manner.

The vſe of the Bull.

Now for the Cow, you ſhall chuſe her of the ſame Country with your Bull, and as neare as may be of one colour, onely her bagge or vdder would euer be white, with foure teates and no more, her belly would be round and large, her forehead broad and ſmooth, and all her other parts ſuch as are before ſhewed in the male kinde.

Of the Cow, & her ſhape.

The vſe of the Cow is two-fold, either for the Darie, or for breed: The red Cow giueth the beſt milke, and the black Cow bringeth forth the goodlieſt Calfe. The yong Cow is the beſt for breed, yet the indifferent old are not to be refuſed. That Cow which giueth milke longeſt is beſt for both purpoſes, for ſhe which goes long drie looſeth halfe her profit, and is leſſe fit for teeming: for commonly they are ſubiect to feede, and that ſtraytneth the wombe or matrix.

Of her vſe.

Now for Calues: there are two ways of breeding them: the one to let them runne with their Dams al the yeere, which is beſt, & maketh the goodlieſt beaſt: the other, to take them from their Dams, after their firſt ſucking, and ſo bring them vp on the finger, with flotten milke, the colde onely being taken away and no more; for to giue a young Calfe hot milke is preſent death, or very dangerous. If your Calfe be calued in the fiue dayes after the

Of Calues, and their nouriſhing.

Obſeruations.

the change, which is called the *Prime*, doe not reare it, for moſt aſſuredly it will haue the Sturdy, therefore preſerue it onely for the butcher; alſo when you haue preſerued thoſe male Calues, which ſhall be Buls, then geld the reſt for Oxen, and the younger they are geelt the better. The beſt time for rearing of Calues, is from *Michaelmas* till *Candlemas*. A Calfe would be nouriſhed with Milk twelue weekes, onely a fortnight before you weane it from Milke, let the Milke be mixt with water. After your Calfe hath drunke one moneth: you ſhall take the fineſt, ſweeteſt, and ſofteſt Hay you can get, and putting little wiſpes into clouen ſtickes, place them ſo as the Calfe may come to them and learne to eate Hay. After our *Ladies*-day, when the weather is faire, you may turne your Calues to graſſe, but by no meanes let it be ranke, but ſhort and ſweet, ſo that they may get it with ſome labour.

Now of the Oxe: You ſhall vnderſtand that the largeſt are the beſt and moſt profitable, both for draught or feeding: for he is the ſtrongeſt to indure labour, and beſt able to containe both fleſh and tallow. Now for his ſhape, it differeth nothing from that of the Bull, only his face would be ſmooth, and his belly deeper. That Oxe is fitteſt for the yoake, which is of gentleſt nature, and moſt familiar with the man. In matching your Oxen for the yoake, let them as neare as may be, be of one height, ſpirit, and ſtrength, for the ſtronger will euer wrong the weaker, and the duller will iniure him that is of free ſpirit, except the driuer be carefull to keep the dull Oxe to his labour. Oxen for the yoake, would by no meanes be put beyond their ordinary pace: for violence in trauaile heates them, heat breeds ſurfeit, and ſurfeit thoſe diſeaſes which makes them vnapt to feed, or for any other vſe of goodneſſe. Of the Oxe, and his vſe.

Of his food to labour.

goodneſſe. Your Oxe for the yoake will labour well with Barly-ſtraw, or Peaſe-ſtraw, and for blend fodder which is Hay and ſtraw mixed together, he will deſire no better feeding.

Oxen to feed or the Butcher

Now for your Oxe to feede, hee would as much as might be, be euer of luſty and yong yeeres, or if old yet healthfull & vnbruiſed, which you ſhall know by a good taile, and a good pyzell, for if the haire of one or both be loſt, then he is a waſter & he will be long in feeding. If you doe ſee the Oxe doth licke himſelfe all ouer, it is a good ſigne that he is market-able and will feede, for it ſhewes fourdneſſe, & that the beaſt taketh a ioy in himſelfe: yet whilſt he doth ſo lick himſelfe he feedeth not, for his owne pride hindreth him, and therefore the husband man will lay the Oxes owne dung vpon his hide, which will make him leaue licking & fall to his foode. Now if you goe to chuſe a fat beaſt, you ſhall handle his hindmoſt ribbe, & if it be ſoft & looſe, like Downe, then it ſhews the Oxe is outwardly well fed; ſo doth ſoft huckell bones, & a bigge nach, round & knotty: if his cod be big & full, it ſhewes he is well tallowed, and ſo doth the croppe behinde the ſhoulders: If it be a Cow, then handle her nauell, and if that be big, round & ſoft, ſurely ſhe is well tallowed. Many other obſeruations there are, but they be ſo well knowne, and common in euery mans vſe, that they need no curious demonſtration.

To preſerue Cattell in health.

Now for the preſeruation of theſe cattell in good and perfect health. It ſhall be meete that for the young and luſty, and indeede generally for all ſorts, except Calues, to let them bloud twice in the yeere, namely the Spring and fall, the Moone being in any of the lower Signes, and alſo to giue them to drinke of the pickle of *Oliues* mixed with a head of *garlicke* bruiſed therin. And

for

for your Calues, be onely careful that they goe not too ſoone to graſſe, and ſmal danger is to be feared. Now notwithſtanding all a mans carefulnes, beaſts daily doe get infirmities, and often fall into mortall extremities, peruſe therefore theſe Chapters following, and you ſhall finde cure for euery particular diſeaſe.

Chap. 2.

Of the Feauer in Cattell.

CAttell are moſt ſubiect vnto a Feauer, & it commeth either from ſurfet of foode, being raw, and muſty, or from fluxe of cold humors ingendred by cold keeping. The ſignes are trembling, heauie eyes, a foaming mouth, and much groaning: & the cure is; firſt, you ſhall let him bloud, and then giue him to drinke a quart of ale, in which is boiled three or foure roots of *Plantaine*, and two ſpoonefuls of the beſt *London-Treakle*, and let his Hay be ſprinkled with water. The Cure:

Chap. 3.

Of any inward ſickneſſe in Cattell.

FOr any inward ſickneſſe or drooping in Cattell, take a quart of ſtrong Ale, and boile it with a handfull of *Wormewood*, and halfe a handfull of *Rewe*, then ſtraine it, and adde to it two ſpoonfuls of the iuyce of *Garlicke*, and as much of the iuyce of *Houſeleeke*, & as much *London-Treakle*, and giue it the beaſt to drinke, being no more but lukewarme.

Chap. 4.

Of the diſeaſes in the head, as the Sturdy, or turning-euill.

THis diſeaſe of the Sturdy is knowne by a continuall turning a bout of the beaſt in one place; and the cure is, to caſt the Beaſt, and hauing made his feet faſt, to ſlit the vpper part of his forehead croſſe-wiſe, about foure inches The Cure:

inches each way, then turning vp the skinne and laying the skull bare, cut a peece out of the skull two inches square or more: then looke, and next vnto the panicle of the braine, you shall see a bladder lye full of water and blood, which you shall very gently take out, and throw away, then annoynt the place with warme fresh Butter, turne downe the skinne, and with a needle and a little red silke stitch it close together, then lay on a hot playster of oyle, Turpentine, Waxe, and a little Rozen melted together with Flaxe-hurds, and so folding warme woollen cloathes about the head, let the Beast rise, and so remaine three or foure dayes ere you dresse it againe, and then heale it vp like another wound, onely obserue in this cure, by no meanes you touch the braine, for that is mortall, and then the helpe is both common and most easie.

Chap. 5.

Of diseases in the eyes of Cattell, as the Haw, a stroake, inflammation, weeping, or the Pin or webbe.

FOr any generall forenesse in the eyes of Cattle, take the Water of *Eye-bright*, mixt with the iuyce of *Houseleeke*, and wash them therewith, and it will recouer them: but if a Hawe breede therein, then you shal cut it out, which euery simple Smith can do. But for a stroake, inflammation, Pinne or web, which breedes excressions vpon the eyes: take a new layd Egge, and put out halfe the white, then fill it vp with Salt, and a little Ginger, and roste it extreame hard in hote cinders: which done, beate it to powder shell and all; but before you roste it, wrap it in a wet cloath, and put of this powder into the beasts eye, and it will heale and cure it.

CHAP.

Chap. 6.

Of diſeaſes in the mouth, as barbs vnder the tongue, blaine on the tongue, teeth looſe, or tongue venomed.

THeſe Barbs or Paps which grow vnder the tongues of Cattle, and being inflamed doe hinder them from feeding, you ſhall with a keene paire of ſhcares cut away cloſe by the fleſh, and if they bleed much (as they will do if they be rancke) you ſhall then with a red hot bodkin ſeare them, and drop on the top of the ſeared places a drop or two of Rozen and Butter mixt together; but if they bleede not, then onely rub them with Sage and Salt, and they will heale. Now for the blaine on the tongue, of ſome called the tin-blaine, it is a bliſter which groweth at the rootes of the tongue, and commeth through heat of the ſtomacke and much chafing, and is oft very mortall, for it will riſe ſo ſuddenly and ſo big, that it will ſtop the winde of the Beaſt. The cure is, to thruſt your hand into the mouth of the Beaſt, and drawing out his tongue, with your naile to breake the bliſter, and then to waſh the ſore place with ſtrong brine, or Sage, Salt, and Water: if you find more bliſters then one, breake them all, and waſh them, and it is a preſent cure. Now for looſe teeth, you ſhall let the beaſt blood in his gums, and vnder his tayle, then waſh his chaps with Sage and Woodbine leaues, boyld in Brine: Laſtly, if the tongue be venomed, which you ſhall know by the vnnaturall ſwelling thereof: you ſhal take Plantaine, and boiling it with Vinegar and Salt, waſh the tongue therewith, and it will cure it. The Cure.

Chap. 7.

Of diſeaſes in the necke, as being galled, bruiſed, ſwolne, out of ioynt, or hauing the Cloſhe.

IF any Oxes necke be galled, bruiſed, or ſwollen with the

the yoake, take the leaues of round *Aristolochia*, and beating them in a Morter, with *tallow*, or fresh greese, annoynte the sore place therewith, and it will not onely heale it, but any straine in the necke, euen if the bone be a little disordered. Now for the *Closhe* or *Clowse*, which causeth a beast to pil and loose the haire from his necke, and is bred by drawing in wet and rainy weather: you shal take the ashes of an old burnt shooe, and strew it vpon the necke, and then rub it ouer with *Tallow* and *Turpentine* mixt together.

Chap. 8.

Of the Pestilence, Gargill, or Murraine in Beasts.

THis Pestilence or Murraine amongst Beasts is bred by diuers occasions; as from rankenesse of blood, or feeding, from corruption of the ayre, intemperateness of the weather, inundation of floods, or the infection of other *Cattell*. much might be sayd of the violence and mortality thereof, which hath vtterly vnfurnished whole *Countries*: but to goe to the cure, you shal giue to al your *Cattell*, as wel the sound as sicke, this medicine, which neuer failed to preserue as many as haue taken it: Take of old vrine a quart, and mixe it with a handful of Hens dung, dissolued therein, and let your Beast drink it.

The cure.

Chap. 9.

Of the misliking, or leanenesse of Beasts.

IF your Beast fal into any vnnatural mislike or leanenesse, which you shal know by the discolouring of his haire: you shal then cause him first to be let blood, and after take sweet Butter and beat it in a morter, with a little *Myrrhe*, and the shauing of *Iuory*, and being kept fasting, make him to swallow downe two or three bals thereof: and if it be in the winter, feede him with sweet Hay, if in the Summer, put him to grasse.

CHAP.

Chap. 10.

Of the diſeaſe in the Guts, as fluxe, coſtiueneſſe, Cholicke, and ſuch like.

IF your Beaſt be troubled with any ſore laxe, or bloody-fluxe, you ſhal take a handful of the ſeeds of *wood-roſe*, and being dried and beaten to powder, brew it with a quart of ſtrong Ale, and giue it the beaſt to drink. But if hee be too drye or coſtiue in his body, then you ſhall take a handfull of *Fennegreeke*, and boyle it in a quart of Ale, and giue it him to drinke; but for any chollicke or belly-ake, or gnawing of the guts, boyle in the water which he drinketh good ſtore of oyle, and it will helpe him.

Chap. 11.

Of piſſing of Bood.

IF your Beaſt piſſe blood, which commeth eyther of ouer-labouring, or of hard and ſower feeding, you ſhall take *Shepheards purſe*, and boile it in a quart of red Wine, and then ſtraine it, and put to it a little *Cynamon*, and ſo giue it the Beaſt to drinke.

Chap. 12.

Of dropping noſtriles, or any cold in the head.

IF your Beaſts noſtrils run continually, which is a ſigne of cold in the head; you ſhall take *Butter* and *Brimſtone*, and mixing them together, annoynt two gooſe-feathers therewith, and thruſt them vp into the noſtrils of the beaſt: and vſe thus to do euery morning till they leaue dropping.

Chap. 13.

Of any ſwelling in a beaſt whatſoeuer.

IF your Beaſt haue any outward ſwelling, bathe it with oyle and vinegar exceeding hot, and it will aſſwage it:

but if the ſwelling be inward, then boyle round *Ariſtolochia* in his water.

Chap. 14.

Of the worme in the tayle.

THere is a worme which will breede in the tayle of a beaſt, and doeth not onely keepe him from feeding, but alſo eateth away the haire of the taile, and diſfigureth the beaſt. The cure is, to waſh the taile in ſtrong lye made of vrine and *Aſh-wood aſhes*, and that will kill the worme, and alſo heale and dry vp the ſore.

The cure.

Chap. 15.

Of any cough, or ſhortneſſe of breath in Cattle.

IF your beaſt bee troubled with the cough or ſhortneſſe of breath, you ſhal giue him to drinke diuers mornings together a ſpoonfull or two of *Tarre* diſſolued in a quart of new *milke*, and a head of *Garlicke* cleane pild and bruiſed

Chap. 16.

Of any impoſtume, bile, or botch in a beaſt.

IF your beaſt be troubled with any impoſtume, bile, or botch, you ſhall take *Lilly* rootes, and boyle them in *milke* till they be ſoft, ſo that you may make them like pap, then being very hote clap it to the ſoare, and then when it comes to be ſoft, open it with a hote iron, and let out the filth, then heale it vp with *Tarre*, *Turpentine*, and *oyle* mixt together.

Chap. 27.

Of diſeaſes in the ſinewes, as weakneſſe, ſtiffneſſe, or ſorenеſſe.

IF you finde by the vnnimble going of your beaſt, that his ſinewes are weake, ſhrunke or tender: Take *Mallowes* and *Cheekweed*, and boyle them in the dregs of *ale* or in *vinegar*, and being very hote, lay it to the offended member,

member, and it will comfort the ſinewes.

Chap. 18.

Of the generall ſcab, particular ſcab, itch, or ſcurfe in Cattle.

IF your beaſt be troubled with ſome few ſcabs heere and there on his body, you ſhall onely rub them off, and annoynt the place with blacke Sope and Tar mixt together, and it will heale them. But if the ſcab be vniuerſall ouer the body, and the ſcabs mixt with a drye ſcurfe; then you ſhall firſt let the beaſt blood, after rub off the ſcabs and ſcurfe till the skin bleed, then waſh it with olde vrine and greene Copporas together, and after the bathing is drye, annoynt the body with Bores greaſe and Brimſtone mingled together.

Chap. 19.

Of the hide-bound, or drye skinne in Cattle.

THis griefe commeth of ouer-much labour and euill keeping, and aboue all other beaſts your *Lincolne-ſhire* Oxen are ſubiect vnto it, the ſignes are a diſcolou- The Cure.
red and hard skin, with much leanneſſe: The cure is, to let him blood, and to giue him to drinke a quart of good ſtrong Ale brewed with *Myrrhe* and the powder of *bay berries*, or for want of *Berries* the Bay-tree leaues, and then keepe him warme and feede him with Hay that is a little Mow-burnt, and onely looketh red, but is not duſty or mou'dy, for that will get him an appetite to drinke, and drinking will looſen his skin.

Chap. 20.

Of the diſeaſes in the lungs, eſpecially the lung-grewne.

THe Lungs of a beaſt are much ſubiect to ſickneſſe, as may appeare by much paring, and ſhortneſſe of breath, the ſignes being a continuall coughing, but that

which is before preſcribed for the Cough, will cure all theſe, onely for a beaſt which is Lung-growne, or hath his lungs growne to his ſide, which commeth through ſome extreme drought taken in the Summer ſeaſon, and is knowne by the cough, hoarſe, or hollow coughing, you ſhall take a pint of *Tanners oze*, and mixe it with a pint of new milke, and one ounce of browne *Sugar-candy*, and giue it the Beaſt to drinke, this hath beene found a preſent cure: Or to giue him a ball as bigge as a mans fiſt of Tarre and Butter mixt together, is a very certaine cure.

Chap. 21.

Of biting with a mad dog, or any other venemous beaſt.

IF your Beaſt bee bitten with a mad-dogge, or any other venemous Beaſt, you ſhall take *Plantaine*, and beate it in a morter with *Bolearmoniake*, *Saguis draconis*, Barley meale, and the whites of Egges, and playſter wiſe lay it vnto the ſore, renewing it once in foureteene houres.

Chap. 22.

Of the falling downe of the pallate of a beaſts mouth.

LAbour and drought will make the pallate of a Beaſts mouth to fall downe, which you ſhall know by a certayne hollow chanking in his mouth, when hee would eate, alſo by his ſighing, and a deſire to eate but cannot. The ordinary cure is, you ſhall caſt the Beaſt, and with your hand thruſt it vp, then let him blood in the pallate, and annointe it with Honey and Salt: and then put him to graſſe, for hee may eate no dryc meate.

The Cure.

CHAP.

Chap. 23.

Of any griefe or paine in the hoofe of a beaſt, and of the Foule.

TAke *Mugwort* and beate it in a morter with hard *tallow*, and apply it to the hoofe of the Beaſt, and it wil take away any griefe whatſoeuer. But if he be troubled with that diſeaſe which is called the *Foule*, and commeth moſt commonly by treading in mans ordure, breederh a ſorenеſſe and ſwelling betweene the cleyes, you ſhall for the cure, caſt the Beaſt, and with a Hay ſtope rub him ſo hard betweene the ſame, that you make him bleede, then annoynt the place with *Tarre*; *Turpentine*, and Kitching fee, mixt together, and keepe him out of the durt, and he will ſoone be whole. The Cure.

Chap. 24.

Of bruiſings in generall, on what part of the body ſoeuer they bee.

TAke *Brookelime* the leſſe, and frye it with *tallow*, and ſo hote lay it to the bruiſe, and it will eyther expell it, or elſe ripen it, breake it, and heale it, as hath beene often approoued.

Chap. 25.

Of ſwallowing downe Hens-dung, or any poiſonous thing.

IF your beaſt haue ſwallowed downe Hens-dung, Horſe-leeches, or any other poyſonous thing, you ſhall take a pint of ſtrong vinegar, and halfe ſo much oyle or ſweete Butter, and two ſpoonefuls of *London-treacle*, and mixing them together on the fire, giue it the beaſt warme to drinke, and it will cure him.

Chap. 26.

Of killing Lice or ticks.

BEaſts that are bred in Woodes vnder droppings of trees, or in barren and vnwholeſome places are much

subiect to Lice, Tickes, and other vermine. The cure whereof is to annoynt their body with fresh *grease, pepper, Staue saker*, and *Quicksiluer*, beaten together vntil the *Quicksiluer* be slaine.

The Cure.

Chap. 27.

Of the Dewbolne, or generall Gargill.

HOwsoeuer some of our English Writers are opinioned, this *Dewbolne* or general *Gargill* is a poysonous and violent swelling, beginning at the neather part of the *Dewlap*, and if it bee not preuented, the swelling wil ascend vpward to the throate of the beast, and then it is incurable: therefore for the preseruation of your Beast, as soone as you see the swelling appeare, cast the Beast, and slit the swel'd place of the *Dewlap* at least foure inches in length: then take a handful or two of *Steare-grasse* or *Knot grasse*, and thrusting it into the wound, stitch it vp close, then annoynt it with *Butter* and *Salt*, and so let it rot and weare away of it selfe: if you perceiue that his body be sweld, which is a signe that the poyson is dispersst inwardly, then it shal bee good to giue him a quart of *Ale* and *Rew* boyled together, and to chafe him vp and downe wel, both before and after.

Chap. 28.

Of the losse of the Cud.

A Beast wil many times through careleſneſſe in chawing, loose his Cud, and then mourne and leaue to eate: The certaine cure whereof is, to take a little sowre *Leauen* and *Salt*, and beating it in a morter with mans *Vrine* and *Lome*, make a pretty bigge bal, and force him to swallow it downe, and it will recouer his Cudde.

The Cure.

CHAP.

Chap. 29.

Of killing of all sorts of wormes, either in the Oxe, Cow, or Calfe.

THere is nothing killeth wormes in the bodies of cattel sooner then *Sauen* chopt smal, and beaten with sweet *butter*, and so giuen in round bals to the Beast, nor any thing maketh them voyde them so soone as sweete *Wort*, and a little *blacke-sope* mixt together, and giuen the Beast to drinke. The Cure.

Chap. 30.

Of the vomiting of blood.

THis Disease commeth through rankenesse of blood, got in fruitful pastures after hard keeping, insomuch that you shall see the blood flow from their mouthes. The cure is, first to let the beast blood, and then giue to drinke *Bolearmoniake* and *Ale* mixt together.

Chap. 31.

Of the Gout in eattell.

IF your Beast be troubled with the Gout, which you shal know by the suddaine swelling of his ioynts, and falling againe, you shal take *Galingall*, and boyle it in the dregs of *Ale* and sweet *Butter*, and pultis-wise lay it to the offended member.

Chap. 32.

Of milting of a Beast.

MIlting, is when a beast wil oft fall, and oft rise, as hee is at his labour, and cannot indure to stand any while together: it proceedeth from some stroake or bruise eyther by cudgel or other blunt weapon: And the cure is, not to rayse him suddainly, but to giue him *Ale* and some stone-*pitch* mixt very wel together to drinke. The Cure.

Chap. 33.

Of prouoking a beaſt to piſſe.

IF your beaſt cannot piſſe, ſteepe *Smallage*, or the Rootes of *Raddiſh* in a quart of *Ale*, and giue it him to drinke, and it preſently helpeth.

Chap. 34.

Of the ouerflowing of the gall in beaſts.

THe ouerflowing of the Gall, is euer knowne by the yellowneſſe of the skinne and the eies of the beaſt: And the cure is, to giue him a quart of *milke, Saffron,* & *turmericke*, mixt together to drinke after he hath beene let blood, and ſo do three mornings together.

The cure.

Chap. 35.

Of a beaſt that is goared eyther with a ſtake, or the horne of another beaſt.

TAke *turpentine* and oyle, and heate them on the coales, and then taint the wound therewith, and it will heale it.

Chap. 36.

Of a Cow that is whetherd.

THis diſeaſe is when a Cow after her caluing cannot caſt her cleaning, and therefore to compell her to caſt it, you ſhal take the iuyce of *Bettony, Mugwort*, and *Mallowes*, of each three ſpooneſuls, and mixe it with a quart of *Ale*, and giue it the beaſt to drinke: and alſo giue her to eate ſcorched *Barly*, and it will force her to auoyde her burthen ſuddainly.

CHAP. 37.

Of drawing out thornes or ſtubs.

TAke blacke *Snailes* and blacke *Sope*, and beate them to a ſalue, and apply them to the ſore, and it will draw the griefe to bee apparant.

CHAP.

Chap. 38.

Of purging of Cattell.

THere is nothing doth purge a beaſt ſo naturally, as the greene weedy graſſe which groweth in orchards vnder trees; nor any medicine doeth purge them better the *tarre*, *butter*, and *Sugarcandy*, mixt together, and giuen in bals as big as on Hennes egge.

Chap. 39.

Of being ſhrew-runne, or ſhrew-bitten.

A Shrew Mouſe, which is a Mouſe with ſhort vneuen legges, and a long head, like a ſwines, is a venemous thing, and if it bite a beaſt, the ſore will ſwell and rankle, and put the beaſt in danger; but if it onely runne ouer a beaſt it feebleth his hinder parts, and maketh him vnable to goe: the cure then for being ſhrew-bitten, is the ſame which is formerly ſhewed for the biting of other venemous beaſts: but if he be ſhrew-runne, you ſhall onely draw him vnder, or beate him with a Bramble which groweth at both ends in the Furrowes of Corne lands. The Cure.

Chap. 40.

Of faintneſſe in labour.

IF your beaſt in his labour, and heat of the day, chance to faint, you ſhall looſe him, and driue him to the running ſtreame to drinke, and then giue him two or three *Oſpines* full of parcht *Barley* to eate, and hee will labour freſh againe.

Chap. 41.

Of breeding Milke in a Cow.

IF your Cow after her caluing cannot let downe her Milke, you ſhall giue her a quart of ſtrong poſſet Ale mixt with *Anne-ſeedes*, and *Coliander-ſeedes*, beaten to powder, to drinke euery morning, and it will not

onely

onely make her milke ſpring, but alſo increaſe it wonderfully.

Chap. 42.

Of bones out of ioynt, or bones broken.

IF any Beaſt haue a bone broken, or miſplaced, after you haue ſet it right, and in his true place: you ſhal wrappe a playſter about it, made of *Burgundy pitch*, *Tallow*, and *Linſeede oyle*, and then ſplent it, and let it remayne vnbound fifteene dayes, and it will doe it much good.

Chap. 43.

Of the rot in Beaſts.

IF your beaſt bee ſubiect to rotterneſſe, which you may know by his leanneſſe, miſlike, and continuall ſcouring behinde: you ſhal take *Bay-berries*, beaten to powder, *Myrrhe*, *Iuye leaues*, *Elder leaues*, and *Feuther-fewe*, a good lumpe of drye *clay*, and *bay ſalt*, mixe theſe together in ſtrong vrine, and being warme, giue the beaſt halfe a pint thereof to drinke, and it will knit and preſerue them.

Chap. 44.

Of the Pantas.

THe *Pantas* is a very faint diſeaſe, and maketh a beaſt to ſwear, ſhake, and much. The cure is, to giue him in *Ale* and *vrine* xt togethe:, a little *Soote*, and a little carning to drin' wo or three mornings before you labour him.

The Cure.

Chap. 45.

Of all manner of wounds in beaſts.

TO cure any wounds in Beaſts giuen by edge-tooles, or otherwiſe, where the skin is broke; take *Hogs-greaſe*, *Tarre*, *Turpentine*, and *waxe*, of each a like quantity, and a quarter ſo much *verd-greaſe*, and melt them all

all together into one ſalue, and apply it to the wound, by ſpreading it vpon a cloath, and it wil heale it without any ranke, or dead fleſh.

The end of the Bull, Oxe, Cow, and Calfe.

Of Sheepe.

Chap. I.

Of Sheepe in generall, their vſe, choyſe, ſhape, and preſeruation.

To enter into any longer diſcourſe of praiſe or profite of Sheepe, or to ſhew my Reading by relation of the Sheep of other Countries were friuolous, becauſe I am to Write much in a very little Paper: and I ſpeake onely to my Countrey-men the Engliſh, who deſire to learne and know their owne profit. Know then, that whoſoeuer wil ſtocke himſelfe with good Sheepe, muſt looke into the nature of the ſoyle in which hee liueth: For Sheepe according to the Earth and Ayre in which they liue, do alter their natures and properties: the barren Sheepe becomming good, in good ſoyles, and the good Sheepe barren in euill ſoyles. If then you deſire to haue Sheepe of a curious fine Stable of Wooll, from whence you may draw a thread as fine as ſilke, you ſhall

ſhall ſee ſuch in *Hereford-ſhire*, about *Lempſter* ſide, and other ſpeciall parts of that Countrey; in that part of *Worſter-ſhire*, ioyning vpon *Shrop-ſhire*, and many ſuch like places, yet theſe Sheep are very little of bone, blacke faced, and beare a very little burthen. The Sheepe vpon *Cotſall* hils are of better bone, ſhape & burthen, but their ſtaple is courſer and deeper. The Sheepe in that part of *Worſter ſhire*, which ioyneth on *Warwick-ſhire*, and many parts of *Warwick-ſhire*, all *Leiceſter-ſhire*, *Buckingham-ſhire*, and part of *Northampton-ſhire*; and that part of *Notingham-ſhire*, which is exempt from the Forreſt of *Sherwood*, beareth a large boned Sheepe, of the beſt ſhape and deepeſt ſtaple; chiefly if they be paſture Sheepe; yet is their wooll courſer then that of *Cotſall*. *Lincolne-ſhire*, eſpecially in the ſalt Marſhes, haue the largeſt Sheepe, but not the beſt wooll, for their legges and bellies are long and naked, and their ſtable is courſer then any other: The Sheepe in *Yorke-ſhire*, & ſo Northward, are of reaſonable bigge bone, but of a ſtaple rough and hairy; and the Welſh Sheepe are of all the worſt, for they are both little, and of worſe ſtaple; and indeede. are prayſed onely in the diſh, for they are the ſweeteſt Mutton.

Of the choyſe of Sheepe.

If now, knowing the natures and properties of the Sheepe of euery Country, you goe about to ſtocke your ground, bee ſure to bring your Sheepe from a worſer ſoyle to a better, and not from a better to a worſe. The

Of the Leare.

Leare, which is the earth on which a Sheepe lyeth, and gineth him his colour, is much to be reſpected: the red Leare is held the beſt, the Duskiſh, inclining to a little rednesſe, is tollerable, but the white or durty Leare ſtarke naught. In the choiſe therefore of your Sheepe, chuſe the biggeſt boned, with the beſt wooll; the ſtaple being

being ſoft, greaſie, well curled, and cloſe together, ſo that a man ſhall haue much a doe to part it with his fingers. Theſe ſheep beſides the bearing of the beſt burthen, are alwayes the beſt Butchers ware, & goe ſooneſt away in the Market. Therefore, in the choiſe of Sheep for your breed, haue a principall reſpect to your Rammes, for they euer marre or make a flocke: let them then as neere as you can, haue theſe properties or ſhapes. Firſt, large of body in euery generall parte, with a long body, and a large belly; his forehead would be broad, round, and well riſing, a cheerefull large eye, ſtraight ſhort noſtrils, and a very ſmall muzell; by no meanes any hornes, for the dodder Sheepe is the beſt breeder, & his iſſue neuer dangereth the Damme in yeaning, as the horned Sheepe doe: beſides, thoſe Sheepe which haue no hornes, are of ſuch ſtrength of head, that they haue oft beene ſeene to kill thoſe ſheepe which haue the largeſt hornes and beſt wrinkled: a Sheepe would haue a large vpright necke, ſomwhat bending like the neck of a Horſe, a very broad backe, round buttocks a thicke taile, and ſhort ioynted legges, ſmall, cleane, & nimble, his wooll would be thick, and deepe, couering his belly all ouer; alſo, his face, and euen to his noſtrils, and ſo downwards to his very knees and hinder houghes. And thus according to the ſhape, properties & ſoyle, from whence you chuſe your Rams chuſe the reſt of your flocke alſo. The ſhape of a Sheepe.

The beſt time for your Ewes to bring forth their yong ones is, if they be Paſture-Sheepe, about the latter end of *Aprill*, and ſo vntill the beginning of *Iune*; but if they be Field-Sheepe, then from the beginning of *Ianuary*, till the end of *March*, that their lambs may be ſtrong and able before *May*-day, to follow their dams ouer the rough Fallow lands, and water furrowes, which weake Lambes When Ewes ſhould bring forth.

Lambes are not able to doe; and although to yeane thus early in the winter, when there is no graſſe ſpringing, and the ſharpneſſe of the weather alſo be dangerous, yet the Husbandman muſt prouide ſhelter and ſweet fodder, and the Shepheard with great vigilance be ſtirring at all houres to preuent euils, for the reaſons before ſhewed: and though the Ewe at the firſt be ſcant of Milke, yet as the warme weather increaſeth, and the graſſe beginneth to Spring, ſo will her Milke ſpring alſo.

Ordering of Lambes.

Now for your Lambes: about *Michaelmas* you ſhall ſeperate the male from the female; and hauing choſen out the worthieſt, which you meane to keepe for Rams, put them aſide, and then gueld the reſt, which euery orderly Shepheard can doe ſufficiently, for there is no danger in gelding yong Lambes. The firſt yeare a male Lambe is called a weather-Hog, and a female Lambe an Ewe-Hog: the ſecond yeare the male is a weather, and the female a Theaſe, & then ſhe may be put to the Ram, but if you let her goe ouer that yeere alſo, then ſhee is a double Theaſe, and will both herſelfe be the goodlier Sheepe, & alſo bring forth the goodlier Lambe; whence it comes, that the beſt Sheepe-maſters make more account of the double Theaſe then of any other breede.

Needfull Obſeruations.

You ſhall obſerue neuer to ſheare your Lambes til they be full Hogs: you ſhall euer waſh three dayes before you ſheare: the beſt time of ſheating is from *June* to *Auguſt*. Ewes are euer good breeders from three yeares old till they moulthes breake. If you would haue your Ewes bring forth male Lambes, note when the Northwinde bloweth, & driuing your flock againſt the winde: let your Rammes ride as they goe, and this will make the Ewes to conceiue Male Lambes: ſo likewiſe, if you would

would haue female Lambes, put your Rammes to the Ewes when the winde bloweth out of the South.

Now for the generall preſeruation of Sheep, feed them as much as you can vpon high grounds, which are drie and fruitfull, the graſſe ſweet, yet ſo ſhort that it muſt be got with much labour: but if you muſt force perforce feed vpon low and moyſt grounds, which are infectious, you ſhall not bring your Sheepe from the Fold (for I now ſpeake to the honeſt Engliſh Huſbandman) vntill the Sunne be riſen, and that the beames beginne to draw the dew from the earth; then hauing let them forth, driue them to their place of feede & there, with your dog, chaſe them vp & downe till they be weary, & then let them either feed or take their reſt, which they pleaſe: this chaſing, firſt, beateth away mill-dewes, & all other dewes from the earth, as alſo thoſe webs, keis, & flakes which lying on the earth, and aſheep licking them vp, do breed rottenneſſe: alſo, this chaſing ſtirreth vp that naturall heate in a ſheepe, which drinketh vp, and waſteth the abundance of moyſture, which elſe would turne to rottenneſſe. Beſides, a ſheepe being thus chafed and wearied, will fall to his food more deliberately, and not with ſuch greedineſſe as otherwiſe he would, and alſo make choiſe of that meate which is beſt for his health. If a Shepheard once in a moneth, or alwayes when he hath occaſion to handle his Sheepe, rub their mouthes with *Bay Salt*, it is an excellent preſeruation againſt all manner of ſickneſſe, and very comfortable for a ſheepe alſo, for a ſheepe will very well liue, and abate of his fleſh by rubbing his mouth once a day with *Bay ſalt* only. Now, for as much as not withſtanding theſe principles, a Sheepe falleth into many infirmities, hereafter followeth the ſeuerall cures of all manner of diſeaſes.

CHAP.

Chap. 2.

The ſignes to know a ſound Sheepe, and an vnſound Sheepe.

IF a Sheepe be ſound and perfit, his eye will be bright and cheerefull, the white pure without ſpot, and the ſtrings red, his gums alſo will be red, his teeth white and euen, his skin on his briſket will be red, and ſo will each ſide betwixt his body and his ſhoulder where Wooll growes not, his skinne in generall will be looſe, his Wooll faſt, his breath long, & his feet not hot; but if he be vnſound, then theſe ſignes will haue contrary faces, his eyes will be heauy, pale and ſpotted, his breaſt and gums white, his teeth yellow and foule, his Wooll when it is pulled will eaſily part from his body; and when hee is dead open him and you ſhall finde his belly full of water, his fat yellow, his Liuer putrified, and his fleſh moyſt and watriſh.

Chap. 3.

Of ſickneſſe in generall, or the Feauer amongſt Sheepe.

CHange of Paſture is a great cure for ſicke Sheepe, yet if you finde any more particularly troubled then the reſt: Take *Puliol* royall, and ſtamping it, mixe the iuyce with *Water* and *Vinegar* the quantitie of halfe a pint, and giue it the Sheepe with a horne luke warme, and by no meanes let the Sheepe be much chaf't: alſo in theſe ſickneſſes the Shepheard muſt haue a great care to note from whence the diſeaſe groweth, if it proceede from cold, then to driue his ſheepe to ſhelter, if from heat, then to feed them in ſhady and coole places.

Chap. 4.

Of the generall Scab or Itch in Sheepe.

THis generall Scab or Itch in Sheepe is of all diſeaſes the moſt common among them, proceeding from rayny

rainy and wet Weather, which falling vppon their skins, if they happen to be chaft or heated after, they preſently breake foorth into the ſcabs, which you ſhal know by a white filthy ſcurfe ſticking vpon their skinnes: and the moſt vſual medicine for the ſame, which all Shepheards vſe, is to annoynt the place with *tarre*, and *greaſe*, mixt together, but if vppon the firſt appearance of the Itch, you ſteepe *Pulioll-royall* in Water, and VVaſh the skin therewith, it will preſerue them from running into the ſcabbe.

CHAP. 5.

Of killing Maggots in Sheepe.

IF a Sheepe be troubled with Maggots, you ſhall take *Gooſe-greaſe*, *tarre*, and *Brimſtone*, and mixe them together on the fire, and then annoynte the place therewith, and it will kill the Maggots.

CHAP. 6.

Of the red Water.

THe red Water is a poyſonous diſeaſe in ſheep, offending the heart, and is indeede as the peſtilence amongſt other cattle: therefore when you finde any of your ſheepe infected therewith, you ſhall firſt let him blood in the foote betweene the clawes, and alſo vnder the tayle, and then lay to the ſore places *Rew* or *Wormewoode* beaten with bay *Salt*, and it helpeth.

CHAP. 7.

Of Lung-ſicke, or any cough or cold.

IF your ſheepe bee troubled with any ſickneſſe in his Lungs, which you ſhall know by his coughing and ſhortneſſe of breath, you ſhall take *Tuſſilago* or *Colts-foote* and *Lungwort*, and ſtamping them, ſtraine the iuice into a little *hony* and *water*, and giue it the ſheep to drink.

Chap. 8.

Of the worme in the claw of the sheepe, or any other part.

THis Worme breedeth commonly before, betweene the clawes of the foot: but wheresoeuer it breedeth, it is knowne by the head, which is like a tuft of haire, and will sticke forth in a bunch. The cure is, to slit the foot, and draw out the worme without breaking it: and then annoynt the place with *Tarre* and *tallow* mixt together, for *tarre* simply of it selfe wil draw too much.

The Cure.

Chap. 9.

Of the wildfire in Sheepe.

THis disease which is called the Wildfire, is a very infectious sicknes, and wil indanger the whole flocke; but howsoeuer incurable it is held, yet it is certaine, that if you take *Cheruile*, and stamping it with old *Ale*, make a salue thereof, and annoynte the sore therewith, it will kill the fire, and set the Sheepe safe: and, though some, for this disease, bury the first infected Sheepe alive, with his heeles vpward, before the sheepe-coat doore, yet this medicine hath bin euer found more effectuall.

Chap. 10.

Of the diseases of the Gall, as Choler, Iaundise, and such like.

THese diseases are knowne by the yellownesse of the sheepes skinne: and the cure is, to take *Plantaine* and *lettice*, & stamping them together, mixe their iuice with *vinegar*, and giue halfe a pinte to a Sheep to drinke.

The Cure.

Chap. 11.

Of the tough fleame or stopping in Sheepe.

IF your Sheepe be stopt in the head, breast, or wesand, either with tough fleame or other cold humors, which you shall know by the running of the nostrils, then take

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the powder of *Puliol-royall*, and mixing it with clarified Hony, diſſolue it in warme Water the quantity of halfe a pint, and giue it the Sheepe to drinke, and it will lodſen the fleame.

Chap. 12.

Of broken bones in Sheepe, or bones out of ioynt.

IF your Sheepe chance to breake a legge, or haue any other bone miſplaced, you ſhall after you haue ſet it ſtraight and right againe: firſt bathe it with *oyle* and *wine*, and then dipping a cleath in molten *Patchgreeſe*, roule it about, and ſplint it as occaſion ſhall ſerue, and ſo let it remaine nine dayes, and dreſſe it againe, and at the end of the next nine dayes, the ſheepe will be able to go.

Chap. 13.

Of any ſickneſſe in Lambes.

IF your Lambe be ſicke, you ſhall giue it *mares-milke*, or *Goates-milke*, or the owne dammes milke mixt with Water to drinke, and keep it very warme.

Chap. 14.

Of the Sturdy, turning-euill, or More-found.

THeſe diſeaſes proceede from rankeneſſe of blood, which offendeth the braine, and other inward parts. The cure then is to let the ſheep blood in the eye veines, temple veines, and through the noſtriles, then to rub the places with young *Nettles* bruiſed. The Cure.

Chap. 15.

Of diſeaſes in the eyes, as the Haw, dimneſſe, or any ſoreneſſe.

IF your ſheepe haue any imperfection in his eyes, you ſhall drop the iuyce of *Selandine* into them, and it is a preſent helpe.

Chap. 16.

Of water in a Sheepes belly.

IF a Sheep haue Water in his belly betweene the outward flesh and the rimme, then you may safely aduenture to let it foorth by making a little hole through the flesh, & putting in a quill, but if it be betweene the rimme and the bagge, then it is incurable, for you may by no meanes cut the rimme asunder: When the water is ler forth, you shal stitch vp the hole, and annoynt it with *Tarre* and *butter* mixt together. This Water if it remaine in the body will rot the sheepe.

Chap. 17.

Of the tagden belt sheepe.

A Sheepe is sayd to be tagd or belt, when by a continuall squirt running out of his ordure, hee berayeth his tayle, in such wise that through the heate of the dung it scaldeth, and breedeth the scabbe therein. The Cure is, with a paire of sheares to cut away the tags, and to lay the sore bare and raw, and then to throw earth dried vpon it, and after that *tarre* and *goose grease* mixt together.

The Cure.

Chap. 18.

Of the poxe in sheepe.

THe Poxe in sheepe and smal red pimples like purples rising on the skin, and they are infectious. The cure is, to take *Rosemary* and boyle the leaues in *vinegar*, and bathe the sores therewith, and it wil heale them: change of pasture is good for this disease, and you shal also separate the sicke from the sound.

Th Cure.

Chap. 19.

Of the wood-euill or Crampe.

THis disease is weakenesse or straitning of the sinewes, got by colds and surfeits: it is very mortall, and will

run

runne through a whole flocke. The cure is, to take *Cinkfoile*, or *Fiue-leaued* graſſe, and boile it in Wine, and giue The cure.
the ſheep a pinte thereof to drinke, and keep him warm, and chafe his legges with *oyle* and *vinegar*.

CHAP. 20.

Of making an Ewe to loue her owne Lambe, or any other Ewes Lambe.

IF an Ewe grow vnnaturall, and will not take to her Lambe after ſhe hath yeaned it, you ſhal take a little of the cleane of the Ewe, which is the bed in which the Lambe lay, and force the Ewe to eate it, or at leaſt chew it in her mouth, and ſhee will fall to loue it naturally: but if an Ewe haue caſt her Lamb, and you would haue her take to another Ewes Lambe, you ſhall take the Lambe which is dead, and with it rub and daube the liue Lambe all ouer, and ſo put it the Ewe, and ſhe will take as naturall to it, as if it were her owne.

CHAP. 21.

Of licking vp poiſon.

IF a Sheepe chance to licke vp any poyſon, you ſhall perceiue it by a ſuddaine ſwelling and reeling of the ſheepe. And the cure is, as ſoone as you ſee it ſtanger, to open the mouth, and you ſhall finde one or moe bli- The Cure.
ſters vpon the tongue Rootes, you ſhall preſently breake them with your fingers, and rubbe them with *Earth* or *Sage*, and then piſſe into the ſheepes mouth, and it will do well.

CHAP. 22.

Of Lambes yeaned ſicke.

IF a Lambe be yeaned ſicke and weake, the Shepheard ſhall fold it vp in his Cloake, blow into the mouth of it, and then drawing the dammes dugs, ſquirt milke into the mouth of it.

Chap. 23.

Of making an Ewe to be eaſily deliuered.

IF an Ewe can hardly bring forth or yeane her Lambe, you ſhal take *Balſaminte* or *Horſe-mint*, and put either the iuyce or powder of it into a little ſtrong ale, and giue it the Ewe to drinke, and ſhee will yeane preſently.

Chap. 24.

Of teeth looſe.

IF a ſheepes teeth be looſe, let him blood in his gums, and vnder his taile, and then rub his teeth with *earth*, *Salt* and *Sage*.

Chap. 25.

Of increaſing milke in Ewes.

NOthing increaſeth Milke in Ewes more then change of Paſture and feeding: driuing them one while vnto the Hils, another while to the Vallyes: and where the Graſſe is ſweeteſt and ſhort, the ſheepe eateth with beſt appetite, there ſee you continue longeſt: for touching giuing them *Fitches*, *Dill*, *Anniſeedes*, and ſuch like, this change of ground will make Milke ſpring much better.

Chap. 26.

Of the ſtaggers, or leaſe ſickneſſe in Lambes, or elder ſheepe.

THe Staggers is ingendred in ſheepe by ſurfeiting on Oke leaues, Hawthorne leaues, or ſuch like, which Lambes are very apt vnto: it is a colde corrupt blood, or fleame, gathered together about the braine: and indeed is ſuddainly mortal. The beſt cure is, to take *Aſafetida*, and diſſolue it in warme Water, and put the quantity of halfe a ſpooneful into each eare of the Sheep or Lambe, and it is a preſent remedy.

The Cure.

Chap.

Chap. 27.

Of wormes in the guts of ſheepe or Lambes.

SHeepe are as ſubiect to Wormes in their guts and ſtomaekes as any other cattle whatſoeuer, which you ſhall know by beating their bellies with their feete, and by looking continually at their bellies. The cure is, to take the leaues of *Coliander*, and to ſtampe them, and then mixing the iuyce thereof with *Honey*, to giue the ſheepe to drinke, and then chaſe him a little, and keepe him two or three houres faſting. The Cure.

Chap. 28.

Of the loſſe of the Cudde.

THat which helpeth the loſſe of the Cud in Oxe, or Cow, the ſame is a preſent remedy for ſheep, and is ſpoke of before in a former Chapter.

Chap. 29.

Of ſauing ſheepe from the rot.

THis diſeaſe of rottenneſſe is the cruelleſt of all other amongſt Sheepe, and extendeth his violence ouer all the flocke: nay, ouer Townſhips and Countryes: and though it be held of moſt men incurable, yet good Gouernement, and this Receite I ſhall deliuer you, will not onely preuent it, but preſerue your Sheepe ſafe: Therefore, as ſoone as you perceiue that any of your Sheepe are tainted, you ſhal take *Adraces*, which is a certaine ſalt, gathered from the ſalt Marches, in the heate of Summer, when the tide is going away, and leauing certaine drops of ſalt Water on the Graſſe, then the violent heat of the Sunne turnes it to ſalt: and to ſpeake briefely, all ſalt made by the violence of the Sunnes heate only, is taken for *Adraces*, of which there is infinite ſtore in *Spaine*. With this *Adraces* rub the mouthes of all your Sheepe once a weeke, and you ſhall neuer neede to feare

the rotting of them, for it hath beene wel tried: and as I imagine, the experiment was found out from this very ground. It is a rule, and wel knowne at this day in *Lincolneſhire*, and in *Kent*, that vpon the ſalt Marſhes ſheep did neuer dye of the Rot: no other reaſon being known therefore, but the licking vp of that Salt, and without doubt, it is moſt infallible and moſt eaſie.

Chap. 30.

A few precepts for the Shepheard.

IT is meete that euery good and carefull Shepheard know what foode is good for Sheepe, what hurtfull: that following the one, and eſchewing the other, he may euer keepe his Cattle in health. The graſſe that is moſt wholeſome for ſheepe, is that which hath growing in it good ſtore of *Mellilot*, *Clauer*, *Selfe-heale*, *Cynckiefoyle*, *Broome*, *Pympernell*, and white *Hexband*.

The Graſſe which is vnwholeſome for *Sheepe*, is that which hath growing amongſt it, *Speare-wort*, *Pennirwort*, or *Penny-graſſe*, and any Weed which grow from inundations or ouerflowes of water; likewiſe, *Knot-graſſe* is not good, nor Muldewd graſſe. Of all Rots the hungar-rot is the worſt, for it both putrifieth the fleſh and skin, and this is moſt incident to field-ſheepe, for to Paſture-ſheepe it neuer happeneth. The next Rot to it, is the Pele-rot, which commeth by great ſtore of raine, immediately after a ſheepe is new ſhorne, which mildewing the skin, corrupteth the body; and this alſo is moſt incident to field-ſheepe, which want ſhelter.

There be little white Snailes which a ſheep will licke vp, and they will ſoone rot him.

There will grow vpon an Ewes teats little dry ſcabs, which wil ſtop their milke; when the Lambes ſucke, the ſhepheard muſt haue care to dul them away.

A

A Sheepe will haue a bladder of water vnder his chin ſometimes, which the ſhepheard muſt be carefull to let out and lance, or the ſheepe wil not proſper.

It is good not to ſheare ſheep before Midſummer, for the more he ſweateth in his wooll, the better, and more kindly it is.

If you will know the age of your ſheepe, looke in his mouth, and when he is one ſheare he wil haue two broad teeth afore: when he is two ſheare, hee will haue foure broad teeth afore: when he is three, he will haue ſixe, and when he is foure ſheare, hee will haue eight: and after thoſe yeares his mouth will beginne to breake: for, touching that rule of the euenneſſe and vneuenneſſe of the mouth, it is vncertayne, and fayleth vpon many occaſions.

The end of the Sheepe.

Of Goates.

Chap. I.

Of Goates, and of their nature.

SEeing Goates are not of any generall vſe in our Kingdome, but only nouriſhed in ſome wilde and barren places, where Cattle of better profit can hardly be maintayned, as in the mountaynous parts of *Wales*, in the barrenneſt parts of *Cornewall* and *Deuonſhire*, on *Malborne* hils, and ſome few about the *Peake*: I wil not ſtand vpon any large diſcourſe, but as briefly as I can, giue you their natures and cures. You ſhal then know, that the Goate

The nature of Goates.

Goate is a beaſt of a hot, ſtrong, and luſty conſtitution eſpecially in the act of generation, that they exceed all other cattell: delight to liue in mountaines that be high, craggy, and full of Buſhes, Bryars, & other wood; they will feed in any plaine paſtures, but their ſpeciall delight is in brouſing vpon trees, they are ſo nimble of foot, that they will goe in places of greateſt danger. The profit which commeth from is their Milke, which is an excellent reſtoratiue, & their Kids which are an excellent veniſon. They are in other Countreys, as in *Spaine*, the Ilands of the *Azores*, and the Ilands of the *Canaries*, preſerued for the chaſe & for hunting as wee preſerue our Deere both red and fallow and make excellent paſtime.

His ſhape.

For the ſhape of the Goate: he would haue a large body, and well hayred, great legs, vpright ioyntes, not bending, a necke plaine and ſhort, a head ſmall and ſlender, large hornes, & bending, a big eye, and a long beard, and his colour white, black, or pide. Some doe vſe to ſheare them, to make rough mantles of, but it not ſo with vs in *England*. The ſhee-Goate would haue large teates, and big vdder, hanging eares, and no hornes, as they haue in many places.

The ordering of Goates.

Theſe Goates would be kept in ſmall flockes, or heardes, as not aboue a hundred in a heard: as they muſt in the heate of Sommer haue much ſhade, ſo in the winter likewiſe much ſhelter, for they can neither endure extremity of heate nor cold, eſpecially, the violence of Winter, for that will make the Shee-Goate caſt her Kid, or bring it forth vntimely. Theſe loue Maſt well, but yet you muſt giue them other foode to mixe with it. The beſt time to let the male and female goe together, is about the beginning of *December*. If you houſe Goats, in the Winter, let them haue no litter to lye on, but the

floore

floore paued, or grauelled, for otherwiſe, their owne heat will annoye them: they muſt alſo be kept very cleanly, for they can endure no filthy ſauours. For the young Kids, you ſhall in all points order them as you doe your Lambes.

Now, for their preſeruation; if they be ſuffered to goe and chuſe their owne food, they are to themſelues ſo good phyſitians, that they will ſeldome or neuer be troubled with any inward ſickneſſe; onely the vnnaturall exceſſe of their luſt maketh them grow ſoone old, and ſo both paſt vſe and profit. For thoſe particular diſeaſes which accidentally fall vpon them: here followeth the Cures.

Chap. 11.

Of the peſtilence in Goates, or any inward and hidden ſickneſſe.

IF you perceiue your Goates to droope, or looke with ſullen or ſad countenances, it is an aſſured ſigne of ſickneſſe; but if they foame or lather at the mouth, then it is a ſigne of the peſtilence. The cure is, firſt, to ſeperate them from the ſound, then to let them bloud, and giue them the Buds and Leaues of *Celodine*, with ruſhes and reedes to eate, and it is a preſent remedy. The cure.

Chap. 12.

Of the dropſie in Goates.

GOates are very much ſubiect vnto the Dropſie, through their exceſſe drinking of water; the ſigne whereof is a great inflamation and heate in the skin: the cure is to ſeeth *Wormewood* in *Water* and *Salt*, and giue a pint thereof to the Goate to drinke diuers mornings, for to ſlit and let out the water vnder the ſhoulder, is not ſo certaine and ſafe a cure. The Cure.

CHAP.

Chap. 4.

Of ſtopping the teats.

THere will ingender in the teats of Goates, a certayne tough hard fleame, which will ſtoppe the milke from iſſuing: Which to cure, you ſhall with your finger and your thumbe pull it away, and then annoynt the place with *Honey*, and the *Goates milke* mixt together. The Cure.

Chap. 5.

Of Goates that cannot Kidde.

GOates aboue other Cattle, are troubled with hardneſſe in Kidding, by reaſon that if they be chaſed or hunted, their Kiddes will turne in their Bellies: the Remedy then to preſerue them from that danger, is to keepe them quiet and vntroubled, vntill they haue Kidded.

Chap. 6.

Of the tetter, or drye ſcab in Goates.

TO heale any Tetter, or drye ſcabbe in Goates, take *blacke ſope, Tarre, Hogs-greaſe*, and *Brimſtone*, mixe them well together, and annointe the ſores therewith, and it wil heale them.

Chap. 7.

Of gelding Kiddes in the Summer ſeaſon.

KIds being gueld in Summer ſeaſon, as thoſe which are late kidded muſt neceſſarily be; the Flye will be buſie with the ſore, that with their blowings they wil breed ſuch ſtore of Maggots in the Wound, that wil endanger their liues: to defend them then from ſuch annoyance of the Flye, you ſhal take *Soot*, *Tarre*, and thicke *Creame*, and mixe them wel together, and annoynt the Wound therewith, and it wil both heale, and keep the Flye away.

Chap.

Chap. 8.

Of the itch in Goates.

If your Goats be troubled with any Itch, ſo that they cannot feed for clawing and biting themſelues, you ſhall waſh their skinnes with old *Chamber-lye*, and greene *Coporas* well boyled together, and it will kill the Itch.

Chap. 9.

Of the tuell ſtopping in Goates.

Goates when they are ſucking on their dammes, or when they are new Kidded, will commonly haue a great laxe or ſquirt, ſo that the ordure which commeth from them, if it be not well cleanſed and taken from them, it will with their owne natural heate ſo bake and dryc, that it wil ſtop vp their Tuels, ſo that they cannot dung, which if it be not holpen, the Kidde wil dye. The cure is, to cleanſe the place, and open the Tuel, and then put into it an inch or there about of a ſmal *Candles* end dipt in *Hony*, and then annoynte all the Tuell ouer with *Capons-greaſe*. The Cure.

Chap. 10.

Of the ſtaggers, or reeling euill in Goates.

If your Goates be troubled with the Staggers or Reeling euil, which is a diſeaſe bred in them by the violent heat of the Sunne, you ſhal take *Bay ſalt* and *verdiuyce*, and mixe them together, and giue the Goate halfe a pint thereof to drinke: or elſe take *Houſe-leeke*, and *Dragons*, of each a like, ſo grounds of *Ale*, with a little new *Milke*, ſtampe the hearbes, and then mingle them together, then put thereto a few *genes* groſſely beaten, and then boile it againe, then coole it, and giue the ſicke Goate three or foure ſpoonefuls thereof to drinke, and it wil cure her. Now for any other infirmities which ſhal happen

happen vnto Goates, you may cure them with the same medicines which you cure sheepe, for their natures do not much differ.

The end of the Goate.

Of Swine.

CHAPTER 1.

Of all manner of Swine, their natures, vse, shapes, and preseruations.

ALthough Swine are accounted troublesome noysome, vnruly, and great rauenours, & indeede their natures are not much differing from such qualities, yet the vtility and profite of them, will easily wipe off those offences; for to speake truely of the Swine, he is the Husband-mans best Scauenger, and the Huswifes most wholesome sinke, for his foode and liuing is by that which would else rot in the yard, make it beastly, and breed no good meanure, or being cast downe the ordinary sinke in the house breed noysome smels, corruption, and infection: for from the Husband-man he taketh pulse, chaffe, Barne-dust, mans ordure, Garbage, and the Weedes of his yard: and from the Huswife the draffe, Swillings, Whey, washing of tubs, and such like, with which he will liue and keepe a good state of body very sufficiently, and though he is accounted good in no place but the dish only, yet there hee is so louely and so wholesome, that all other faults may be borne with

He

He is by nature greedy, giuen much to roote vp grounds, and teare downe fences, he is very lecherous, and in that act tedious and brutiſh: he is ſubiect to much anger, and the ſight of the Boars is exceeding mortall: they can by no meanes endure ſtormes, winds, or foule weather, they are excellent obſeruers of their owne homes, and exceeding great louers one of another: ſo that they will die vpon any beaſt that offendeth their fellowes.

Now touching the choyſe of ſwine, you ſhall vnderſtand that no Countrey in *England* breedeth naturally better Swine one then another: But if any haue prehe- Of the choyſe and ſhape of Swine.
minence, then I muſt preferre *Leiceſterſhire* and ſome parts of *Northamptonſhire* and clay-Countryes bordering *Leiceſter-ſhire*, and the reaſon I take to bee, their great multiplicitie of graine, eſpecially Beanes and pulſe. For the Maſt-countries, though they are good feeders, they are no large breeders, whence it comes that your wilde Swyne is euer your leaſt Swine, but your ſweeteſt Bacon. But if the race and keeping be alike, the proportion and goodneſſe will be alike: therfore in the choyſe of your Swyne, chiefly the Boares & Sowes which you breed of, let them be long and large of body, deepe ſided, and deepe bellied, thicke thighes, and ſhort legges, for though the long-legged Swyne appeare a goodly beaſt, yet he but couſeneth the eye, and is not ſo profitable to the Butcher: high clawes, thicke necke, a ſhort and ſtrong groyne, and a good thick chine well ſet with ſtronge briſtles: the colour is beſt which is all of one peece, as all white, or all ſanded, the pide are the worſt & moſt apt to take Meazels, the black is tolerable, but our Kingdom through the coldnes breedeth them ſeldome.

The vſe and profit of Swine is onely (as the Husbandman ſaith) for the roote, which is Bacon, for the ſpit which

The vse and profit of Swine.

which is Porke, Sowse and Puddings, and for breed, which is their Pigs onely. To haue too many Sowes in a yard is not good; for their increase, and bringing forth is so great, that they will for want of food eate one another: A Sowe will bring forth Pigs three times a yeere, namely at the end of euery ten weekes, and the numbers are great which they will bring forth: for I haue known one Sow haue twenty Pigs at one litter, twelue, foureteen & sixteene are very common; yet a Sow can bring vp no more Pigs then she hath Teats, therefore looke how many she hath, and so many Pigs preserue of the best, the rest cast away, or put to other Sowes which want, yet giue sucke. A Sow will bring Pigs from one yeere olde, till she be seauen yeares old: The Pigs which you reare after you haue chosen the best for Boares or Sowes to breed on, geld the rest both males & females: the males will make goodly Hogs, which are excellent Bacon or Porke, & the females which are called spayd-guilts, will doe the like; and breed a great deale more grease in their bodies, whence it comes that the husbandman esteemes one spayd-guilt before two Hogs. Young Shots which are are Swine of three quarters, or but one yeere old, are the daintiest Porke.

Now for the preseruation of Swine, it is contained in their gouernment and food, and is all that belongeth to the office of the Swine-heard. The orderliest feeding of Swine is, (when you keep them, but in good state of body, and not seeke to fat them) in the morning early when you vnstie them is to giue them Draffe, Pulse, or other garbage, with swilings in their troughes, and when they haue eaten it to driue them to the field, where they may graze and roote for their food: and of grounds the soft marsh and moorish grounds are the best, where they may

may get the Roots of Sedge, Reeds, Ruſhes, Knot-graſſe, and ſuch like, which is wholeſome for Swine, or the Fallow or tylthe field where they may Roote at pleaſure, and by killing the Weed bring profit to the earth: and at the fall of the Leafe, it is good to driue them to hedges, where they may get Hawes, Hips, Sloes, crabs, or ſuch fruite, which is alſo very wholeſome: and the poorer ſort will gather theſe fruites, and keep them ſafe to feed their Swine with all the Winter. When Euening commeth, you ſhall driue your Swine home, and then filling their troughes with Draffe and ſwilling, let them fill their bellies, and then ſtie them vp, ſo ſhal you keepe them from doing other hurts or iniuries. If once in a fortnight you mixe with your ſwillings ſome *Radle*, or *red Oaker*, it will preſerue them wonderfully from Meazels and all inward infections. And thus much for the generall diſcourſe of Swine: Now I will proceede to their particular infirmities, and other buſineſſes.

Chap. II.

Of the Feauer, or any hidden ſickneſſe in Swine.

THere is no Beaſt maketh his ſickneſſe ſo apparant as the Swine, for when he findeth any griefe or diſtemperature in his body, he preſently droopeth, forſakes his meate, and will not eate till he find in himſelfe a perfect Recouery: Therefore when you ſhall ſo find him to forſake his meat, you ſhal firſt let him blood vnder his taile, and vnder his eares, and if they bleed not freſhly enough you ſhall beate them with a ſmall ſticke, and that will bring forth the blood, then wrap about the wounds the barke of a young *Oſier*, and then keep him warme, and giue him to drinke warme *ſwillings*, wel mixt with *barley* meale, and *red oaker*. The Cure.

Chap. 3.

Of the Murren, Peſtilence, or Catharin Swine.

THeſe diſeaſes being all of one nature, are very much incident to Swine, and ſpring from many grounds, as from corruption in blood ingendred by the eating of rotten fruit, or too much Butchers garbage, and many times by eating too ranke graſſe, wherein is much *Hemlocke*: The particular ſignes are, moyſt eyes, and their heads borne on each ſide, but the generall knowledge is their faſting and mortality. The cure is, to giue them in warme *waſh*, *Hens-dung*, and boyld *Liuerwoort*, with a little *red oaker*.

The Cure.

Chap. 4.

Of the Gall in Swine.

SWine will oft haue an ouer-flowing of the Gall, becauſe choller is much powerfull in them, which you ſhal know by a ſwelling which wil riſe vnder their iawes And the cure is, to ſtampe *Gallwort*, or *Saffron*, and mixe it with *hony* and *water*, and then ſtrayning it, giue it the Swine to drinke by a pint at a time.

The Cure.

Chap. 5.

Of the Meazels in Swine.

THis Diſeaſe of all other is moſt common in Swine, and with moſt eaſe helped: As thus, you ſhall take the oldeſt *vrine* that you can get, and mixe it with *red oaker*, till it be thicke, and about the quantity of an Ale quart, then mixe it with a gallon of warme ſweet *whey*, and giue it the *Swine* to drinke, after he hath bin kept all night faſting.

Chap. 6.

Of impoſtumes in any part of a Swine.

SWine will haue Impoſtumes in many parts of their bodies, as vnder their throates, their eares, bellies, and

of

oft vpon their ſides. The cure is, if they be ſoft, to lance them, and let out the matter, and then heale them with *Tarre* and *butter*, but if they be not ſoft, then let the Swine blood vnder the tongue, and rubbe all his mouth, chappes and groine, with *wheate* meale and *Salt*, and the Impoſtume will go away. The Cure.

Chap. 7.

Of vomiting in Swine.

IF your Swine do vomit and caſt vp his meate, you ſhall giue him ſpelted *Beanes* to eate, and they will ſtrengthen his ſtomacke.

Chap. 8.

Of leanneſſe, miſlike, ſcurfe, and mangineſſe in Swine.

THeſe Diſeaſes proceed from corruption of blood, ingendred by lying Wet in their ſtyes, hauing filthy rotten Litter, or much ſcarcity of meate. The cure is, firſt to let the Swine blood vnder the tayle, then to take a VVooll-carde, and to combe off all the ſcurfe and filth from the Swines backe, euen till his skinne bleede: then take *tarre*, *Hogs-greaſe*, and *Brimſtone*, and mixing them well together, annoynt the Swine therewith, then let the ſtye be mended, his Litter be ſweet, and giue him good warme food, and the Swine will be fat and ſound very ſuddainly. The Cure.

Chap. 9.

Of the ſleeping euill in Swine.

SWine are much ſubiect to this diſeaſe in the Summer-time, and you ſhal know it by their continuall ſleeping, and neglecting to eate their meat. The cure is, to houſe them vp, and keep them faſting twenty & foure houres; then in the morning when hunger pincheth them, to giue them to drinke Water, in which is ſtampt good ſtore of The Cure.

Stonecrope; which, as ſoone as they haue drunke, they will vomite and caſt, and that is a preſent Remedy.

Chap. 10.

Of paine in the Milt.

SWine are oft troubled with paine in their Milts or Spleenes, which proceedeth from the eating of Maſt, when they are firſt put thereunto, through their ouer greedy eating therof, and is knowne by a Reeling, going of one ſide. The cure is, to giue them the iuyce of *wormewoode*, in a little *Honied-water* to drinke, and it will aſſwage the payne.

The Cure.

CHAP. 11.

Of the vnnaturalnes of Sowes.

MAny Sowes do prooue ſo vnnaturall that they will deuoure their Pigs when they haue farro'd them, which ſpringeth from an vnnatural greedineſſe in them: which to helpe, you muſt watch her when ſhe farroweth, and take away the Pigs as they fall, then take the wreckling, or worſt Pigge, and annoynt it all ouer with the iuyce of *Stonecrope*, and ſo giue it the Sow agayne: and if ſhe deuoure it, it will make her caſt and vomit ſo extreamely, that the payne of the ſurfet will make her loathe to do the like agayne: But of all cures, the beſt for ſuch an vnnaturall beaſt is to feed her wel, and then kill her.

Chap. 12.

Of the Laxe or Flixe in Hogges.

FOr the Laxe or Flixe in Swine, you ſhall giue them *Veriuice* and *milke* mixt together to drinke, and then feede him with dry food, as ſpletted *Beanes*, *Acornes*, or *Acorne huskes*. This is alſo excellent and approued for young Pigges and Shots, when they haue any ſcouring.

Chap.

Chap. 13.

Of the lugging of Swine with Dogges.

IF your Swine bee extreamely lugged and bitten with dogs, to preuent the ranckling and impoſtumation of the ſoare, you ſhall annoynt it with *vinegar*, *ſope*, and *tallow* mixt together, and it will cure the ſame.

Chap. 14.

Of the Poxe in Swine.

THe Poxe is a filthy and infectious Diſeaſe in Swine, proceeding from corrupt blood, ingendred by pouerty, wet lying, lowſneſſe, and ſuch like; and the Swine can neuer proſper which hath them. The cure is, to giue him firſt to drinke two ſpoonefuls of *London treacle* in a pinte of *honied-water*, which wil expel the infection outwardly, then to annoynt the ſores with *Brimſtone* and *Boares-greaſe* mixt together, and ſo ſeperate the ſicke from the ſound. The cure.

Chap. 15.

Of killing Maggots in the eares or other parts of Swine.

IF Maggots ſhall breede in the eares of your Swine, which haue beene lugged with Dogges, for want of good looking vnto, as often it happeneth: you ſhall take either the ſweeteſt Worte you can get, or elſe *hony*, and annoynt the ſores therewith, and the Maggots preſently will fall off and dye.

Chap. 16.

Of feeding a Swine exceeding fat, either for Bacon, or for Larde.

DIuers men according to the nature of diuers Countries, haue diuers wayes in feeding of their Swine, as thoſe which liue neare vnto Woods and places where ſtore of Maſt is, turne their Swine vnto the Maſt for ſixe The feeding of Swine in wood Countries.

or eight weekes, and then hauing got flesh and fatnesse on their backes do bring them home, and put them vp in Sties, and then feede them for ten dayes or a fortnight after, with old dry Peafe giuen them oft in the day, a little at once, with Water, as much as they will drinke: for this will harden the flesh and fat so, that it will not consume when it comes to boyling: this manner of feeding is good, and not to be disliked.

The feeding of Swine in champaine Countries.

Now, the feeding of Swine in champaine Countries, which are far from Woods, is in this manner: First, you shal stye vp those Swine which you intend to feede, and let them not come out of the same vntil they be fed, but haue their food and water brought vnto them: now, the first two daies you shal giue them nothing; the third day you shall early in the morning giue them a pretty quantity of dry peafe or Beanes; at noone you shal giue them as much more, at foure a clock as much more, and when you go to bed as much more, but all that day no water: The next day, you shall feede him agayne at the same houres, and set water by them that they may drinke at their owne pleasures, and twice or thrice a week, as your prouision will serue you, it is good to fill their bellies with sweet Whay, Butter milke, or warme wash, but by no meanes scant the proportion of their Peafe; and by thus doing, you shall *feede* a Swine fat enough for the slaughter in foure or fiue weekes.

Of feeding at the Reeke.

There be other Husbandmen in champaine Countries, as in *Leicestershire*, and such like, that put their Swine to peafe reekes, or stackes set in the fields, neere vnto water furrowes, or rundles, so that they may let the water into the stacke-yard: and then morning and euening cut a cutting of the stacke or reeke, & spread the reapes amongst the Swine: this manner of feeding is best for smal porkets

and

and wil fat them very reaſonably in three VVeekes or a moneth. If you feede ſheepe amongſt your Porkets, it is very good, and daily by many practiſed; for by that meanes you ſhall not looſe any of your Graine, for what your ſheep cannot gather vp, your Porkets will.

Of feeding of Swine, in, or about great Cities.

Now, for ſuch as liue in or neare about great Cities, or Townes, as *London*, *Yorke*, or ſuch like, and haue neither great ſtore of Maſt, nor great ſtore of Graine; yet they haue a manner of feeding as good, and ſomewhat more ſpeedier then any of the other, onely the Bacon is not ſo ſweet or toothſome; and thus it is: They ſtie vp their fatlings, as is before ſayde, and then take Chandlers Graines, which is the dregges and offall of rendred Tallow, as hard skinnes, kels, and fleſhly lumpes, which will not melt, together with other courſe skins of the Tallow, ſuet, or Kitchin fee, and mixing it warme wath, giue it the Swine to eate three or foure times in the day, and it will ſuddainly puffe him vp with fatneſſe; then beſtow of euery Swine a Buſhell of dry peaſe to harden his fleſh, and you may then kill them at your pleaſure. The only danger of this food is, it will at firſt ſometimes make Swine ſcoure, eſpecially young Pigges, if they eate it: but aſſoone as you perceiue ſuch a fault, giue vnto your elder ſwine, milke and verdiuyce, and to your ſucking Pigs verdiuyce only.

Of feeding Hogs for larde, or Boares for Brawne.

Now, laſtly, the beſt feeding of a ſwine for larde, or a Boare for Brawne, is to feed them the firſt weeke with Barley ſodden till it breake, and ſod in ſuch quantity, that it may euer be giuen ſweet: then after to feed them with raw mault from the floore, before it be dried, till they be fat enough: and then for a weeke after, to giue them dry *Peaſe* or *Beanes*, to harden their fleſh. Let their drinke be the waſhing of Hoggeſheads, or Ale barrels, or

ſweete Whay, and let them haue ſtore thereof. This manner of feeding, breeds the whiteſt, fatteſt, and beſt fleſh that may be, as hath beene approoued by the beſt Husbands.

The end of the Swine of all ſorts.

Of Conies.

Chap. 1.

Of the tame rich Conie, his nature, choyſe, profit, and preſeruation.

The nature of the Cony.

ALL ſortes of Conies may as well be kept tame as Wilde, and doe aboue other Beaſts delight in impriſonment and ſolitarineſſe, which proceedeth from the ſtrength of melancholy in their nature, being creatures ſo much participatiõ of the earth, that their delight is to liue in Holes, Rockes, and other darke Cauernes. They are violently hot in the act of generation, and performe it with ſuch vigour and exceſſe, that they ſwound and lye in trances a good ſpace after the deede is done. The males are giuen to much cruelty, and would kil the yong Rabbets if he could come to them: Whence it proceedeth, that the Females after they haue kindled, hide their young ones, and cloſe vp their holes, ſo that the Buckeconie may not find them. The Female, or Doe-conies are wonderfull in their increaſe, and bring foorth young ones euery moneth: Therefore, when you keepe them tame in Boxes, you muſt obſerue to Watch them, and as ſoone

ſoone as they haue kindled, to put them to the Bucke, or otherwiſe they will mourne, and hardly bring vp their younge ones.

The boxes in which you ſhal keepe your tame Conies, would be made of thinne Waineſcot boardes, ſome two foot ſquare, and one foot high; and that ſquare muſt be diuided into two roomes, a greater roome with open windowes of wyar, through which the Conie may feed; & a leſſer roome without light, in which the the Conie may lodge, and kindle, & before them both a Trough, in which you may put meate, and other neceſſaries for the Conie: and thus you may make Boxe vpon Boxe in diuers ſtories, keeping your Bucks by themſelues, and your Does by themſelues, except it be ſuch Does as haue not bred, and then you may let a Bucke lodge with them: alſo when your Doe hath kindled one neſt, & then kindleth another you ſhall take the firſt from her, and put them together in a ſeuerall Boxe, amongſt Rabbits of their owne age; prouided that the Boxe be not peſtred, but that they may haue eaſe and libertie. Of Boxes for tame Conies.

Now, for the choiſe of theſe tame rich Conies, you ſhall not, as in other cattell, looke to their ſhape, but to their richneſſe, onely elect your Buckes the largeſt, and goodlieſt *Conies* you can get: and for the richneſſe of the skin, that is accounted the richeſt, which hath the equalleſt mixtur of black & white haire together, yet the black rather ſhadowing the white, then the white any thing at all ouer maſtring the black, for a black skinne with a few ſiluer haires is much richer then a white skin with a few blacke haires: but as I ſaid before, to haue them equally or indifferently mixt is the beſt aboue all other: the Furre would be thicke, deep, ſmooth, and ſhining, and a blacke coate without ſiluer haires though it be not reckoned a Of the choiſe of rich conies.

rich

rich coate, yet it is to be preferred before a White, a pyed, a yellow, a dunne, or a gray.

Of the profite of rich Conies.

Now for the profit of these rich Conies, (for vnlesse they did farre away, and by many degrees exceede the profit of all other Conies, they were not worthy the charge which must be bestowed vpon them) it is this: First, euery one of the rich Conies which are killed in season, as from *Martilmas* vntill after *Candlemas*, is worth any fiue other Conies, for they are of body much fatter and larger, and when another skin is worth two pence or three pence at the most, they are worth two shillings, or two shillings sixe pence: Againe, they increase oftner, and bring forth moe Rabbets at one kindling then any wilde *Cony* doth; they are euer ready at hand for the dish, Winter and Summer, without charge of Nets, Ferrets, or other Engines, and giue their bodies *gratis*, for their skins will euer pay their masters charge with a most large interest.

Of the feeding and preseruation of Conies.

Now for the feeding and preseruation of these rich *Conies*, it is nothing so costly or troub esome as many haue imagined, and as some (ignorant in the skill of keeping them) haue made the World thinke: for the best food you can feed a *Cony* with, is the sweetest, shortest, softest, and best *Hay* you can get, of which one load will serue two hundred couples a yeare, and out of the flocke of two hundred, you may spend in your House two hundred, and sell in the Market two hundred more, yet maintayne the stocke good, and answere euery ordinary casualty. This *Hay* in little clouen stickes might with ease reach it, and pull it out of the same, yet so as they may not scatter nor waste any. In the troughes vnder their Boxes, you shall put sweet *Oates*, and their Water, and this should be the ordinary and constant food where with

with you ſhould feed your *Conies*, for all other ſhould be vſed but Phyſically, as for the preſeruation of their healths: as thus, you ſhall twice or thrice in a fortnight, for the cooling of their bodies, giue them *Greenes*, as *Mallowes*, *Clauer-graſſe*, *Sower-dockes*, blades of greene *corne*, *cabbage*, or *colewort* leaues, and ſuch like, al which cooleth and nouriſheth exceedingly: ſome vſe to giue them ſometimes ſweet *graines*, but that muſt be vſed very ſeldome, for nothing ſooner rotteth a *Cony*.

You muſt alſo haue great care that when you cut any graſſe for them, or other Weeds, that there grow no young *Hemlocke* amongſt it, for though they will eate it with all greedineſſe, yet it is a preſent poyſon, and kils ſuddainly: you muſt alſo haue an eſpeciall care euery day to make their Boxes ſweet and cleane, for the ſtrong ſauour of their ordure and piſſe is ſo violent, that it will both annoy themſelues, and thoſe which ſhall be frequent amongſt them.

Now for the infirmities which are incident vnto them they are but two: the firſt is Rottenneſſe, which commeth by giuing them too much greene meate, or gathering their *greenes* and giuing it them with the dew on; therefore let them haue it but ſeldome, and then the drineſſe of the *Hay* will euer drinke vp the moyſture, knit them, and keep them ſound without danger. Of the Rot in Conies.

The next is a certaine rage or madneſſe, ingendred by corrupt blood, ſprinking from the ranknes of their keeping; and you ſhal know it by their wallowing and tumbling with their heeles vpward, and leaping in their boxes. The cure is, to giue them *Hare-thiſtle* to eate, and it wil heale them. And thus much of the tame rich *Cony*, and his properties. Of madneſſe in Conies.

The end of the foure footed Beaſts.

THE

The second Booke.

Of Poultry.

CHAPTER 1.

Containing the ordering, fatting, cramming, and curing of all infirmities of Poultry, as Cockes, Hens, Chickins, Capons, Geese, Turkies, Pheasants, Partridges, Quailes, House-doues, and all sorts of Foule whatsoeuer. And first of the Dunghil-cocke, Hen, Chicken, and Capon.

SOme small thing hath bin Written of this nature before, but so drawne from the opinions of old Writers, as *Italians*, *French*, *Dutch*, and such like, that it hath no coherence or congruity with the practise and experience of Englishe customes, both their Rules and climbes being so different from ours, that except wee were to liue in their Countries, the rules which are printed are vseleſſe, and to no purpoſe. To let paſſe then the opinion of Strangers, and come to our owne home-bred knowledge, which is so mixed with all profitable experiments, that it needeth not the helpe of other Nations so much, as men would make vs beleeue.

Of the Dunghill cocke. You shal vnderstand that the dunghill-Cocke (for the fighting Cocke deserueth a much larger and particular discourse) is a Fowle of al other Birds the most manlieſt, stately, and maiesticall, very tame and familiar with the Man, and naturally inclined to liue and prosper in habitable Houses: he is hot and strong in the Act of generation, and wil serue ten Hens sufficiently, and some, twelue

and

and thirteene: He delighteth in open and liberal plaines, where he may lead forth his Hens into greene pastures, and vnder hedges; where they may warme and bathe themselues in the Sunne, for to be pent vp in walled places, or in palied Courts is most vnnatural vnto them, neither will they prosper therein.

Now of the choise and shape of the dung hill-Cock, he would be of a large & well sised body, long from the head to the rumpe, and thicke in the garth; his necke would bee long, loose and curiously bending it, and his body together being straight, & high vp erected, as the Falcon and other birds of pray are, his combe, wattles, and throat would be large, great compasse, ragged, and very Scarlet red, his eyes round and great, the colour answering the colour of his plume or male, as gray with gray, red with red, or yellow with yellow, his bill would be crooked, sharp, & strongly set on to his head, the colour being suitable with the colour of the feathers on his head, his maine or necke feathers would be very long, bright, and shining, couering from his head to his shoulders, his legs straight, and of a strong beame, with large long spurres, sharpe and a little bending, and the colour blacke, yellow, or blewish, his clawes short, strong, and well wrinkled; his tayle long, and couering his body very closely: and for the generall colour of the dung hill Cocke, it would be red, for that is medicinall, and oft vsed in Cullisses and restoratiues. This Cock should be valiant within his owne walke, and if he be a little knauish, he is so much the better; he would be oft crowing, and busie in scratching the earth to finde out wormes & other food for his Hennes. Of the choyse and shape of the Cocke.

Now for the Henne, if she be a good one, shee should not differ much from the nature of the Cock, but be valiant, Of the Hen her choyse & shape

liant, vigilant, and laborious both for her ſelfe and her Chickens. In ſhape the biggeſt and largeſt are the beſt, euery proportion anſwering theſe before deſcribed of the Cock, onely in ſtead of her Combe ſhe ſhould haue vpon her crowne a high thicke tuft of feathers: to haue many & ſtrong clawes is good, but to want hinder clawes is better, for they oft breake the Egs, & ſuch Hens ſometimes proue vnnaturall: it is not good to chuſe a crowing Hen, for they are neither good breeders nor good laiers. If you chuſe Hens to ſit, chuſe the elder, for they be conſtant, and will ſit out their times, and if you will chuſe Hens to lay, chuſe the youngeſt, for they are luſty and prone to the act of ingendring, but for neither purpoſe chuſe a fat Hen, for if you ſet her, ſhe wil forſake her neſt, and if you keepe her to lay, ſhe will lay her Egs without ſhels. Beſides, a fat Hen will waxe ſlothfull, and neither delight in the one nor in the other Act of nature, ſuch Hens then are euer fitter for the diſh then the hen-houſe.

Of ſetting Hennes.

The beſt time to ſet Hens to haue the beſt, largeſt, and moſt kindely Chickens, is in February, in the increaſe of the Moone, ſo that ſhe may hatch or diſcloſe her Chickens in the increaſe of the next new Moone, being in March, for one brood of March chickens is worth three broods of any other: you may ſet Hens from March till October, and haue good Chickens, but not after by any meanes, for the Winter is a great enemy to their breeding. A Henne doth ſit twenty one dayes iuſt, and then hatcheth, but Peahens, Tunkies, Geeſe, Ducks, and other water-fowle ſit thirty: ſo that if you ſet your hen, as you may doe vpon any of their egges, you muſt ſet her vpon them nine dayes before you ſet her vpon her owne. A Hen wil couer nineteene egges wel, and that is the moſt, in true rule, ſhe ſhould couer, but vpon what number

ſoeuer

ſoeuer you ſet her, let it be odde, for ſo the egges will lie round, cloſe, and in euen proportion together: It is good when you lay your Egges firſt vnder your Hennes, to marke the vpper ſide of them, and then to watch the Hen, to ſee if ſhe buſie herſelfe to turne them from the one ſide to the other, which if you finde ſhe doth not, then when ſhe riſeth from her eggs, to feed or bathe her ſelfe, you muſt ſupply that office, and turne euery Egge your ſelfe, and eſteeme your Henne of ſo much the leſſe reckoning for the vſe of breeding: be ſure that the egges which you lay vnder her, be new and ſound, which you may know by their heauineſſe, fulneſſe, and cleereneſſe, if you hold them vp betwixt the Sun and your eie ſight; you muſt by no meanes, at any time raiſe your Hen from her neſt, for that will make her vtterly forſake it. Choyſe of Egges.

Now, for helping a Henne to hatch her Egges or doing that which ſhould be her office, it is vnneceſſarie, and ſhall be much better to be forborne then any way vſed; or to make doubt of bringing forth, or to thinke the Henne ſitteth too long (as many fooliſh curious houſe-wiues doe) if you be ſure you ſet her vpon ſound Egges, is ridiculous, but if you ſet her vpon vnſound Egges, then blame your ſelfe, both of the loſſe and iniury done to the Henne in her loſſe of labour. A Henne will be a good ſitter from the ſecond yeare of her laying to the fift, but hardly any longer: you ſhall obſerue euer when your Hen riſeth from her neſt, to haue meate and water ready for her, leſt ſtraying to farre to ſeeke her foode, ſhe let her Egges coole too much, which is very hurtfull. In her abſence you ſhall ſtirre vp the ſtraw of her neſt, and make it ſoft and handſome, and lay the Egges in order, as ſhe left them: doe not in the election of your Egges, chuſe thoſe which are monſtrous great,

great, for they many times haue two yolkes, and though some write, that such Egs will bring out two Chickens, yet they are deceiued, for if they bring forth two, they are commonly most abortiue and monstrous. To perfume the nest with Brimstone is good, but with Rosemary is much better. To set Hens in the winter time in stowes or cuens is of no vse with vs in *England*, and though they may by that meanes bring forth, yet will the Chickens be neuer good nor profitable, but like the planting of Lemon and Pomegranate trees, the fruit will come a great deale short of the charges. When your Hen at any time is absent from her nest, you must haue great care to see that the Cock come not to sit vpon the Egges, (as he will offer to doe) for he will endanger to breake them, and make her loue her nest worse.

Assoone as your Chickens be hatcht, if any be weaker then other, you shall lap them in Wooll, and let them haue the ayre of the fire, and it will strengthen them; to perfume them with a little Rosemary is very wholesome also; and thus you may in a Siue keepe the first hatcht Chickens till the rest be disclosed, for Chickins would haue no meate for two dayes, but some shels being harder then other, they will take so much distance of time in opening: yet vnlesse the Chickens be weake, or the Hen rude, it is not amisse to let them alone vnder her, for she will nourish them most kindly: after two dayes is past, the first meate you giue them should be very small Oatemeale, some drie and some steept in Milke, or else fine wheat bread crummes, and after they haue got strength, then Curds, Cheese parings, white bread crusts soaked in Milke or drinke, Barley meale or wheate bread scalded, or any such like soft meat that is small, and will easily be diuided. It is good to keepe

Of Chickens.

Chickes

Chickes one fortnight in the houſe, and after to ſuffer them to goe abroad with the Henne to worme, for that is very wholeſome, to choppe greene *Chyues* amongſt your chickens meate, wil preſerue them from the Rye, and other diſeaſes in the head; neither muſt you at any time let your chickins want Water, for if they be forc'd to drink in puddles, it will breed the Pippe: alſo, to feed vppon *Tares*, *Darnell*, or *Cockell*, is very dangerous for young chickens.

Of feeding & cramming Chickins.

You may by theſe foods before ſaid, feed chickens very fat vnder their dams: but if you will haue fat cram'd chickens, you ſhal coope them vp when the Dam forſaketh them, and the beſt crams for them is wheatmeale and water made into dough, and then the crammes ſteepe in milke, and ſo muſt downe their throates, but in any caſe, let the crams be ſmall, and wel wet for choaking. Fourteene daies will feed a chicken ſufficiently: and thus much briefly for your breed.

Of preſeruing Egges.

Now, becauſe Egges of themſelues are a ſingular profit: you ſhall vnderſtand, that the beſt way to preſerue or keep them long, is, as ſome think, to lay them in good Straw, and couer them cloſe, but that is too cold, and beſides wil make them muſty: others wil lay them in Bran, but that is too hot, and will make them putrifie: and others wil lay them in Salt, but that makes them waſte and diminiſh: the beſt way then to keepe them moſt ſweet, moſt ſound, and moſt full, is only to keep them in a heape of old Malt, cloſe, and wel couered all ouer.

Of gathering Egges.

You ſhal gather your Egges vp once a day, and leaue in the neſt but the neſt-Egge, and no more; and that would euer be in the after-noone, when you haue ſeene euery Henne come from her neſt ſeuerally: ſome Hens

will by their cackling tel you when they haue layd, but some will lay mute, therefore you muſt let your owne eye be your inſtructer.

Of the Capon, when to carue him.

Now, touching the *Capon*, which is the guelt Cocke-chicken, you ſhall vnderſtand, that the beſt time to carue or gueld him, is as ſoone as the Dam hath left them, (if the ſtones be come down) or elſe as ſoone as they begin to crow: for the art of caruing it ſelfe, it is both common and eaſie, and much ſooner to be learned by ſeeing one carued, then by any demonſtration in writing.

A Capon to leade chickens.

Theſe Capons are of two vſes: the one is, to lead chickens, Ducklings, young Turkies, Peahens, Phelants and Partriges, which he wil do altogether, both naturally and kindly, and through largeneſſe of his body wil brood or couer eaſily thirty or thirty and fiue; he wil lead them forth ſafely, and defend them againſt Kites or Buzzards, more better then the Hens: therefore the way to make him to take vnto them is, with a fine ſmall Brier, or elſe ſharpe Nettles at night, to beate and ſting all his Breaſt and neather parts, and then in the darke to ſcate the Chickens vnder him, whoſe warmth taketh away his ſmart, hee will fall much in loue with them, and whenſoeuer he proueth vnkind, you muſt ſting, or beat him againe, and this wil make him he wil neuer forſake them.

Of feeding or cramming Capons.

The other vſe of Capons is, to feed for the Diſh, as eyther at the Barne-doores, with craps of corne and the chayings of Pulſe, or elſe in Pens in the houſe, by cramming them, which is the moſt dainty. The beſt way then to cramme a Capon (ſetting all ſtrange inuentions apart) is to take Barley-meale, reaſonably ſifted, and mixing it with new milke, make it into a good ſtiffe dough; then make it into long crams, biggeſt in the midſt, and ſmal-

at

at both Ends, and then Wetting them in luke-warme milke, giue the Capon a full gorgefull thereof three times a day, Morning, Noone, and night, and he wil in a fortnight or three weekes, be as fat as any man need to eate.

As for mixing their crammes with ſweet Worte, *Hogges-greaſe*, or *Sallet Oyle*, they are by Experience found to breed loath in the Birds, and not to feed at all, onely keepe this Obſeruation, not to giue your Capon new meate vntil the firſt be put ouer; and if you finde your Capon ſomething hard of digeſtion, then you ſhall ſift your meale finer, for the finer your meale is, the ſooner it wil paſſe through their bodies. And thus much for the Capon. Now for their infirmities, they follow in order.

Chap. 2.

Of the Pippe in Poultry.

THe Pippe is a white thin ſcale, growing on the tippe of the tongue, and will make poultry that they cannot feede: it is eaſie to be diſcerned, and proceedeth generally from drinking puddle water, from want of water, or from eating filthy meate. The cure is, to pull off the ſcale with your nayle, and then rub the tongue with ſalt. The Cure.

Chap. 3.

Of the Roupp in Poultry.

THe Roupp is a filthy bile or ſwelling on the Rumpe of poultry, and wil corrupt the whole body. It is ordinarily known by the ſtaring and turning back-wards of the feathers. The cure is, to pull away the feathers, and opening the ſore to thruſt out the Core, and then waſh the place with Salt and water, or with Brine, and it helpeth. The Cure

CHAP. 4.

Of the Fluxe in Poultry.

THe fluxe in Poultry commeth with eating too much moiſt meate. The cure is, to giue them peaſe-bran ſcalded, and it wil ſtay them.

The Cure.

CHAP. 5.

Of ſtopping in the belly.

STopping in the bellies of Poultry, is contrary to the fluxe, ſo that they cannot mute: therefore, you ſhal annoint their vents, and then giue them either ſmal bits of bread, or corne ſteept in mans vrine.

CHAP. 6.

Of Lice in Poultry.

IF your Poultry be much troubled with Lice, as it is a common infirmity, proceeding from corrupt food, or want of bathing in ſand, aſhes, or ſuch like: you ſhall take pepper ſmall beaten, and mixing it with warme water, waſh your poultry therein, and it will kill all ſorts of vermine.

CHAP. 7.

Of ſtinging with venemous wormes.

IF your poultry be ſtung with any venemous thing, as you may perceiue by their lowring and ſwelling, you ſhal then annoint them with Rew and Butter mixt together, and it helpeth.

CHAP. 8.

Of ſore eyes in Poultrey.

IF your poultry haue ſore eyes, you ſhall take a leaſe or two of ground-iuie, and chawing it well in your mouth, ſucke out the iuyce, and ſpit it into the ſore Eye, and it wil moſt aſſuredly heale it, as it hath bin often tried.

CHAP.

Chap. 9.

Of Hennes that Crow.

IF your Hennes crow, which is an vnsigne and vnnaturall; you shall pull their wings, and giue her to eate eyther Barley scorched, or small wheate, and keep her close from other Poultry.

Chap. 10.

Of Hens that eate their Egges.

IF your Hen will eate her Egges, you shall onely lay for her nest-egge a piece of chalke cut like an egge, at which oft pecking and loosing her labour, she will refraine the euill.

Chap. 11.

Of keeping a Henne from sitting.

IF you would not haue your Henne sit; you shall bathe her oft in cold water, & thrust a small feather through her nostrils.

Chap. 12.

Of making hennes lay soone and oft.

IF you feede your Hens often with teasts taken out of Ale, with Barley boyld, or spelted fitches, they will lay soone, oft, and all the Winter.

Chap. 13.

Of making Hennes leane.

BEcause fat hennes commonly either lay their Egges without shels, or at the best hand lay very small Egges: to keepe them leane, and in good plight for laying, you shal mixe both their meate and water with the powder of *the sheares, chalke*, or else *sarge*, twice or thrice a Weeke.

Chap. 14.

Of the Crow-trodden.

IF your Henne be trodden with a carrion Crow, or Rooke, as oft they are, it is mortal and incurable, and you shal know it, by the staring vp of her feathers, and hanging of her wings, there is no way with her then but presently to kill her.

CHAP. 15.

Of the Hen-house, and the scituation.

NOw for as much as no Poultry can be kept eyther in health or safety abroad, but must of force be housed, you shal vnderstand that your Henne-house would be large and spacious, with somewhat a high Roofe, the wals strong, both to keepe out theeues and vermine, the windowes vpon the Sunne rising, strongly lathed, and close shuts inward, round about the inside of the wals vpon the ground would be built large pens of three foote high, for Geese, Duckes and great fowle to sit in. Neare to the eauings of the house would be long Pearches, reaching from one side of the house to the other, on which should sit your Cockes, Hennes, Capons, and Turkies, each on seuerall Pearches, as they are disposed: at another side of the house in that part which is darkest, ouer the ground pens, would be fixed hampers full of straw for nests, in which your Hens shall lay their egges; but when they sit to bring forth Chickens, then let them sit on the ground, for otherwise it is dangerous: let there be pins stricken into the Wals; so that your Poultry may climbe to their Pearches with ease: let the floore by no meanes be paued, but of earth, smooth and easie: let the smaller fowle haue a hole at one end of the house made to come in and out at, when they please, or else they will seeke roust in other places, and for the greater fowle the doore

doore may be opened Euening and morning; this houſe would be placed eyther neare ſome Kitchin, Brewhouſe or elſe ſome Kilne, where it may haue aire of the fire, & be perfumed with ſmoake, which to Pullen is delightful and wholeſome. And thus much of the Cocke, Henne, Capon, and Chicken.

Chap. 16.

Of Geeſe, their nature, choiſe, and how to breede them.

Geeſe, are a fowle of great profit many waies, as firſt for foode, next for their feathers, and laſtly for their Greaſe. They are held of Husband-men to be fowle of two liues, becauſe they liue both on land and water: and therefore all men muſt vnderſtand, that except he haue eyther Pond or Streame, he can neuer keepe Geeſe well. They are ſo watchfull and carefull ouer themſelues that they will preuent moſt dangers: Graſſe alſo they muſt neceſſarily haue, and the worſt, & that which is the moſt vſeleſſe is the beſt, as that which is moonish, rotten, and vnſauerey for cattle. To good graſſe they are a great enemy, for their dung and treading will putrifie it, and make it worſe then barren.

Now for the choiſe of Geeſe, the largeſt is the beſt, and the colour would be white or gray, all of one paire, for pyne are not ſo profitable, and blacke are worſe: your Gander would be knauiſh and hardy, for hee will defend his Geeſe the better. The choyſe of Geeſe.

Now for the laying of Egges, a Gooſe beginneth to lay in the Spring, and ſhe that layeth earlieſt is euer the beſt Gooſe, for ſhe may haue a ſecond hatch. Geeſe will lay twelue, and ſome ſixteene egges: ſome will lay more, but it is ſeldome, and they can not be all well couered: you ſhall know when your Gooſe will lay, by her carry- Of laying egs and hatching.

ing of straw vp and downe in her mouth, and scattering it abroad: and you shal know when she wil sit by her continuing on the Nest still after shee hath layd. You must set a Goose vpon her owne Egges, for shee wil hardly or vnkindly sit on another Gooses egges, as some imagine, but it is not euer certayne: You shal in her straw when you set her, mixe *Nettle* roots for it is good for the Gosslings: thirty dayes is the full time that a Goose sitteth, but if the Weather be faire and warme, she wil hatch three or foure dayes sooner: euer when the Goose ariseth from the Nest, you shal giue her meate, as skegge Oates, and Branne scalded, and giue her leaue to bathe in the Water. After she hath hatched her Gosslings, you shal keepe them in the house tenne or twelue dayes, and feed them with curds, scalded clippings, or Barley meale in milke knodden and broken, also ground Malt is exceeding good, or any Branne that is scalded in water, milke, or tappings of drinke. After they haue got a little strength, you may let them goe abroad with a keeper fiue or sixe houres in a day, and let the dam me at her pleasure intice them into the water; then bring them in, and put them vp, and thus order them till they be able to defend themselues from vermine. After a Gossling is a moneth or sixe weekes old, you may put it vp to feede for a greene Goose, and it wil be perfectly fed in another moneth following: and to feed them, there is no meate better then skegge oates boyld, and giue plenty thereof thrice a day, Morning, Noone, and Night, with good store of milke, or milke and water mixt together to drinke.

The ordering of Gosslings.

Of greene Geese and their fatting.

Of Ganders.

Now you shal vnderstand one Gander wil serue wel fiue Geese, and to haue not aboue forty Geese in a flocke is best, for to haue more is both hurtful and troublesome.

Now

Now for the fatting of elder Geese which are those which are fiue or sixe monethes old, you shal vnderstand that after they haue been in the stubble fields, and during the time of Haruest got into good flesh, you shal then chuse out such Geese as you will feede, and put them in seuerall pens which be close and darke, and there feede them thrice a day with good store of oates, or spelted Beanes, and giue them to drinke water and Barley-meale mixt together, which must euermore stand before them, this will in three weekes feed a Goose so fat as is needfull. Fatting of elder Geese.

Now lastly, for the gathering of a Gooses feathers, you shal vnderstand, that howsoeuer some Writers aduise you for a needlesse profit to pul your Geese twice a yeare, *March* and *August*, yet certainly it is very naught and ill: for first, by disabling the flight of the Goose, you make her subiect to the cruelty of the Foxe, and other rauenous Beasts: and by vncloathing her in Winter, you strike that cold into her body, which kils her very suddainly; therefore it is best to stay til moulting time, or til you kil her, and then you may imploy all her Feathers at your pleasure, eyther for Beds, Fletchers, or Scriueners. Of gathering Geese feathers.

For the diseases and infirmities in Geese, the most and worst they are subiect vnto, is the *Gargill*, which is a mortal or deadly stopping of the head. And the ordinary and certayne cure is, to take three or foure cloues of *Garlicke*, and beating them in a morter with sweete *Butter*, make little long bals thereof, and giue two or three of them to the Goose, fasting, and then shut her vp for two houres after. Of the Gargill in Geese. The Cure.

CHAP.

Chap. 17.

Of Turkies, their nature, vſe, increaſe, and breeding.

TVrkies, howſoeuer by ſome Writers they are held deuourers of corne, ſtrayers abroad, euer puling for meat, and many ſuch like fained troubles, as if they were vtterly vnprofitable, yet it is certaine they are moſt delicate, either in Paſte, or from the Spit, and being fat, far exceeding any other houſe-foule whatſoeuer: nay, they are kept with more eaſe and leſſe coſt: for they will take more paines for their foode then any other Bird, only they are enemies to a garden, and from thence muſt euer be kept. They are when they are young very tender to bring vp, both becauſe they haue a ſtraying nature in themſelues, and the dammes are ſo negligent that whilſt ſhe hath one following her, ſhe neuer reſpecteth the reſt: Therefore they muſt haue a Vigilant keeper to attend them till they can ſhift for themſelues, and then they will flock together, and ſeldome be parted. Till you fat them you need not take care for food for them; they loue to Rooſt in trees or other high places.

Of the choyſe of the Turkey-Cocke.

Now for your choyſe of ſuch as you would breede on; your Turky-cocke would not be aboue two yeare old at moſt, be ſure that he be louing to the Chickens, and for your Hen, ſhe will lay til ſhe be fiue yeares old and vpward. Your Turky cocke would be a bird large, ſtout, proud, and maieſtical, for when he walketh deiected, he is neuer good breader.

Of the Turkey-hen, her laying.

The Turky henne, if ſhe be not preuented will lay abroad in ſecret places, therefore you muſt watch her, and bring her in to your Henne-houſe, and there compel her to lay. They begin to lay in *March*, and will ſit in *April*, and eleuen Eggs or thirteene is the moſt they ſhould

ſhould couer: they hatch euer betweene fiue and twenty, & thirty dayes. When they haue hatcht their broods be ſure to keep the Chicks warme, for the leaſt cold kils them, and feed them either with curds, or greene freſh cheeſe cut in ſmal peeces. Let their drink be new milke, or milke and Water: you muſt be careful to feed them oft; for the Turky henne wil not like the Houſe-henne cal her Chickens to feede them. When your Chicks haue got ſtrength, you ſhall feed them abroad in ſome cloſe walled graſſe-plat, where they cannot ſtray, or elſe euer be at charge of a Keeper. The dew, is moſt hurtfull vnto them, therefore you muſt houſe them at night, and let them abroad after Sunne riſe in the morning.

Now for the fatting of Turkies, ſodden Barly is excellent, or ſodden oates for the firſt fortnight, and then for another fortnight, cramme them in all ſorts as you cramme your Capon, and they will be fat beyond meaſure. Now for their infirmities: when they are at liberty, they are ſuch good Phyſitions for themſelues, that they will neuer trouble their owners, but being coopt vp, you muſt cure them as is before deſcribed for Pullen. Their Egges are exceeding wholeſome to eate, and reſtore nature decayed wonderfully. Of feeding Turkies.

CHAP. 18.

Of the Ducke, and ſuch water Fowles.

THe tame Ducke is an exceeding neceſſary fowle for the Husbandmans yard, for ſhe asketh no charge in keeping, but liueth of corne loſt, or other things of leſſe profit. She is once in a yeare a very great layer of Egges, and when ſhe ſitteth ſhe craues both attendance and feeding: for being reſtrayned from ſeeking her food, ſhe muſt be helped with a little barley, or other ouer chaſing

ning of corne, such as else you would giue vnto Swine, as for her sitting, hatching and feeding of her Ducklings it is in all points to be obserued in such manner as you did before with the Goose, onely after they are abroad they will shift better for their food then Gosslings will. For the fatting of Ducks or Ducklings, you may do it in three weekes, by giuing them any kinde of Pulse or Graine, and good store of water.

Of Wilde-Ducks and their ordering.

If you will preserue wilde-Ducks, you must wall in a little peece of ground, in which is some little Pond or Spring, & couer the top of it all ouer with a strong Net: the Pond must be set with many tufts of Oziers, & haue many seuerall holes and creekes in, for that will make them delight and feed though imprisoned. The wild-Ducke when she layeth, will steale from the Drake, & hide her nest, for he else will suck the Egs. When she hath hatcht she is most careful to nourish them, and needeth no attendance more then meate, which would be giuen fresh twice a day, as scalded Bran, oates or Fitches. The house Hen will hatch wilde Ducks Egs, and the meate will be much the better, yet euery time they goe into the water, shee is in danger of the Kite, because the Hen cannot guard them, vse the same manner as you nourish wilde-Ducks, so you may nourish Teales, Widgens, Sheldrakes or greene Ploucrs.

Of Swannes, and their breeding.

THe time of the Swannes breeding is early, for they will lay in March, & sometimes in February, if the season be warme: they vse to make their nests in Reedes, Sedges, or Osiers, and lay sometimes seuen or eight Egs, which they will hatch in fiue weekes. The Cocke is very carefull of the Hen, and will driue away any Foule that comes neere her nest, and will fight with any Dogge that comes neere him. The Swannes will feed their young ones themselues, if they can get meate for them, but if they cannot, you must feed them with Barley, Oates, Bran, or Fitches, and they will be very tame. Swannes will feed vpon Grasse, Rushes, Flaggs, Sedges, Weeds, Corne, Fish, Frogs, Snailes, Worms, Flies, and any thing that they can get. They will grow very fat, and are very good meate, but they are not to be fatted in any place, but where they may haue their liberty, for they will not feed in a house, or in a close place.

Of Cygnets.

Cygnets are young Swannes, and are to be ordered as you order your Gosslings, but they are more tender, and must be kept from wet and cold, and must be fed with Barley, Oates, Bran, or Fitches, and

ſorts as you feed your Geeſe, & they will be thorow fat in ſeauen or eight weekes, either coop't vp in the houſe, or elſe walking abroad in ſome priuate Court; but if you would haue them fat in ſhorter ſpace, then you ſhall feed them in ſome pond, hedg'd or payl'd in for the purpoſe, hauing a little dry ground left where they may ſit and prune themſelues, and you may place two troughes; one full of Barley & Water, the other full of old dride Malt, on which they may feed at their pleaſure, and thus doing, the will be fat in leſſe then foure weeks: for by this meanes a Swanne keepeth himſelfe neate and cleane, who being a much defiled bird, liueth in drie places ſo vncleanely that they cannot proſper, vnleſſe his attender bee diligent to dreſſe and trimme his waike euery houre.

Chap 20.

Of the Peacocks, and Peahens, their increaſe and ordering.

PEacockes, howſoeuer our old writers are pleaſed to deceiue themſelues in their praiſes, are birds more to delight the eye by looking on them, then for any particular profit; the beſt commodity riſing from them, being the cleanſing & keeping of the yard free from venemous things, as Toades, Newtes, and ſuch like, which is their daily food: whence it comes, that their fleſh is very vnwholeſome, and vſed in great banquet more for the rareneſſe then the nourihment, for it is moſt certaine, roſte a Peacocke or Peahen neuer ſo dry, then ſet it vp, and looke on it the next day, and it will be bloud-rawe, as if it had not beene roſted at all.

The Peahen loues to lay her Egges abroad in buſhes and hedges, where the Cocke may not find them, for if he do, he will breake them; therfore as ſoone as ſhe begins

gins to lay, seperate her from the Cocke, and house her till she haue brought forth her young, and that the cronet of feathers begin to rise at their foreheades, and then turne them abroad, and the Cocke will loue them, but not before. A Peahen sits iust thirty dayes, & in her sitting any graine, with water, is food good enough: before your Chickens goe abroad, you shall feed them with fresh greene Cheese, and Barly-Meale, with water; but after they goe abroad, the Dam will prouide for them. The best time, to set a Peahenne is at the beginning of the Moone, and if you set Hen-Egs amongst her Egs, she wil nourish both equally. These Pea-chickens are very tender, and the least cold doth kill them: therefore you must haue care to keepe them warme, & not to let them goe abroad but when the Sun shineth. Now for the feeding of them, it is a labour you may well saue for if they goe in a place where there is any corne stirring, they will haue part, and being meate which is seldome or neuer eaten, it mattereth not so much for their fatting.

Chap. 21.

Of the tame Pigeon, or rough footed.

THe tame rough footed Pidgeon differs not much from the wilde Pidgeon, onely they are somewhat bigger, and more familiar, and apt to be tame; they commonly bring not forth aboue one paire of Pidgeons at a time, & those which are the least of body are euer the best breeders. They must haue their roomes & boxes made cleare once a week; for they delight much in neatnesse, & if the walls be outwardly whited or painted, they loue it the better, for they delight much in faire buildings. They will bring forth their young ones once a moneth, if they be well fed, & after they be well pair'd they will neuer

neuer be diuided. The Cocke is a very louing and naturall Bird, both to his Hen and the young ones, and will ſit the Egges whileſt the Hen feedeth, as the Henne ſits whileſt he feedeth: he will alſo feed the young with as much painefulneſſe as the Dam doth, and is beſt pleaſed when he is brooding them. Theſe kind of Pidgeons you ſhall feed with white Peaſe, Tares and good ſtore of cleane water. In the roome where they lodge you ſhall euer haue a ſalt Cat for them to peck on, & that which is gathered from Saltpeter is the beſt: alſo they would haue good ſtore of dry Sand, Grauell and Pybble, to bath and cleanſe themſelues withal, and aboue all things great care taken, that no vermin, or other Birds come into their Boxes, eſpecially Sterlinges, and ſuch like, which are great Eg-ſuckers. And thus much of the tame Pidgeon.

Chap. 22.

Of nourſhing and fatting Hearnes, Puets, Guls, and Bittors.

HEarnes are nouriſhed for two cauſes: either for Princes ſports, to make traines for the entring their Hawkes, or elſe to furniſh out the Table at great feaſts: the manner of bringing them vp with leaſt charge, is to take them out of their neſts before they can flie, and put them into a large high Barne, where there is many high and croſſe beames for them to pearch on: then to haue on the floore diuers ſquare boords with rings in them, and betweene euery boord which would be two yards ſquare, to place round ſhallow tubs full of water; then to the boords you ſhall tye great gobbets of dogs fleſh, cut from the bones, according to the number which you feede: and be ſure to keepe the houſe ſweet, and ſhift the water

water off, onely the houſe muſt be made ſo that it may raine in now and then, in which the Hearne will take much delight. But if you feede her for the diſh, then you ſhall feede them with Liuers, and the intrailes of Beaſts, and ſuch like, cut in great gobbets; and this manner of feeding will alſo feede either Gull, Puet, or Bitter: but the Bitter is euer beſt to be fed by the hand, becauſe when you haue fed him you may tye his beake together, or he will caſt vp his meate againe.

Chap. 23.

Of feeding the Partridge, Pheſant and Quaile.

THeſe three are the moſt daintieſt of all other birds, and for the Pheſant or Patridge you may feed them both in one roome, where you may haue little boxes where they may runne and hide themſelues in diuers corners of the roome; then in the midſt you ſhall haue three wheat ſheaues, two with their eares vpward, and one with the eares downeward, & neere vnto them ſhallow Tubs with water, that the Fowle may pecke the wheat out of the eares, and drinke at their pleaſures, and by this manner of feeding you ſhall haue them as fat as is poſſible: as for your Quailes, the beſt feeding them is in long flat ſhallow boxes, each boxe able to hold two or three dozen, the formoſt ſide being ſet with round pins ſo thicke that the Quaile may doe no more but put out her head, then before that open ſide, ſhall ſtand one trough full of ſmall chilter-wheat, and another with water, & thus in one fortnight or three weekes you ſhall haue them exceeding fat.

Chap. 24.

Of Godwits, Knots, gray-Plouer, or Curlewes.

FOr to feede any of theſe Fowles, which are eſteemed of all other the daintieſt and deareſt, fine Chilter-

wheat

wheat and water giuen them thrice a day, Morning, Noone, and Night, will doe it very effectually; but if you intend to haue them extraordinary and crammed fowle, then you ſhall take the fineſt dreſt wheate-meale, and mixing it with milke, make it into paſte, and euer as you knead it, ſprinkle into it the grains of ſmal chilter-wheat till the paſte be fully mixt there with; then make little ſmall crams thereof, and dipping them in water, giue to euery fowle according to his bigneſſe, and that his gorge be well filled: doe thus as oft as you ſhall finde their gorges empty, and in one fortnight they will be fed beyond meaſure. And with theſe crammes you may feede any fowle, of what kinde or nature ſoeuer.

Chap. 25.

Of feeding blacke-birds, Thruſhes, Felfares, or any ſmall Birds whatſoeuer.

TO feede theſe Birds, being taken old and wilde, it is good to haue ſome of their kindes tame to mixe among them, and then putting them into great Cages of three or foure yards ſquare, to haue diuers troughs placed therein, ſome filled with Heps & Hawes, ſome with Hempe-ſeede, ſome with Rape-ſeede, ſome with Lin-ſeede, and ſome with water, that the tame teaching the wilde to eate, and the wilde finding ſuch chang and alteration of food they will in twelue or fourteene dayes grow exceeding fat and fit for the vſe of the Kitchin.

The end of the Poultrie.

Of Hawkes.

CHAPTER 1.

Of the generall Cures for all Diſeaſes and infirmities in Hawkes, whether they be ſhort-winged Hawks, or long winged Hawkes: and firſt of Caſtings.

HAwkes, are diuided into two kinds, that is to ſay, ſhort-winged Hawks; as the Goſhawke and her Tercell, the Sparrow-Hawke and her Musker, and ſuch like, whoſe Winges are ſhorter then their traines, and do belong to the Oſtringer: and long-winged Hawkes, as the Faulcon-gentle, and her Tercell, the Gerfaulcon and Ierkin, the Lanner, Merlin, Hobby, and diuers others, which belong vnto Faulkconers. Now, for as much as their infirmities, for the moſt part, proceed from the indiſcretion of their gouernors, if they ſlie them out of ſeaſon, before they be inſeamed and haue the fat, glut, and filthineſſe of their bodies ſcoured and cleanſed out, I thinke it not amiſſe firſt to ſpeake of Hawkes caſtings, which are the naturalleſt and gentleſt purges or ſcourings a Hawke can take, and doth the leaſt offend the vitall parts. Therefore you ſhal know, that all Oſtringers do eſteeme plumage, and the ſoft feathers of ſmall Birds, with ſome part of the skinne, to be the beſt caſting a ſhort-winged Hawke can take; and for the purging of her head, to make her tyer much vpon ſheeps Rumpes, the fat cut away, and the bones well couered with Parcely. But for long-winged Hawkes, the beſt caſting is fine Flannell, cut into ſquare peeces of an inch and

and a halfe ſquare, and all to iagged, and ſo giuen with a little bit of meate. By theſe caſtings you ſhall know the ſoundneſſe & vnſoundneſſe of your Hawke: for when ſhe hath caſt, you ſhall take vp the caſting, which will be like a hard round pellet, ſomewhat long, and preſſe it betweene your fingers, and if you finde nothing but cleere water come from it, then it is a ſigne your Hawke is ſound and luſtie, if their come from it a yellowiſh or filthy matter, or if it ſtinke, it is a ſigne of rottennеſſe and diſeaſe; but if it be greazy or ſlimy on the one ſide, then it is a ſigne the Hawke is full of greaſe inwardly, which is not broken nor diſſolued: and then you ſhall giue her a ſcouring, which is a much ſtronger purgation, and of Scourings the gentleſt, next caſting, is to take foure or fiue Pellets of the yellow roote of Selladine, well cleanſed from filth, being as bigge as great Peaſe and giue them out of water early in a Morning, when the Hawke is faſting and it will cleanſe her mightily. If you take theſe pellets of Selladine, and giue them out of the oyle of Roſes, or out of the ſirrup of Roſes, it is a moſt excellent ſcouring alſo, onely it will for an houre or two make the Hawke ſomewhat ſickiſh. If you giue your Hawke a little *Aloes Cicotrine*, as much as a Beane wrapt vp in her meate, it is a moſt ſouereigne ſcouring, and doth not onely auoyde greaſe, but alſo killeth all ſorts of wormes whatſoeuer. Of ſcourings.

If your Hawke by ouer-flying, or too ſoone flying, be heated and inflamed in her body, as they are much ſubiect thereunto; you ſhall then to coole their bodies, giue them Stones. Theſe Stones are very fine white pibbles, lying in the ſands of gratelly riuers, the bigneſſe of beſt as you may chuſe according to the bigneſſe of your Hawke, as ſcarce no bigger then a Beane, and

thoſe be for *Merlins* or *Hobbies*, ſome as bigge as two Beanes, and they are for Faulcons gentle, Lanners, and ſuch like; and ſome much bigger then they, which are for Gerfaulcons, or ſuch like. And theſe Stones if they be full of creſts and welts, they are the better, for the roughеſt ſtone is the beſt, ſo it be ſmooth and not greety. And you ſhall vnderſtand that Stones are moſt proper for long-wing'd Hawkes, and the number which you ſhall giue at the moſt muſt neuer exceede fifteene, for ſeauen is a good number, ſo is nine or eleuen, according as you finde the Hawkes heate, more or leſſe: and theſe Stones muſt euer be giuen out of faire water, hauing beene before very well pickt and trim'd from all durt or filthines. And thus much of Hawkes caſtings, Scourings, & ſtones.

Chap. 2.

Of Impoſtumes in Hawkes.

IF your Hawke haue any impoſtume riſing vpon her, which is apparant to be ſeene, you ſhal take ſweet *Raiſins*, and boyle them in *Wine*, and then cruſhing them, lay them warme to the ſore, and it will both ripen and heale it: onely it ſhall be good to ſcoure your Hawke very well inwardly, for that will abate the fluxe of all euill humours.

Chap. 3.

Of all ſorts of ſore eyes.

FOr any ſore eye there is nothing better then to take the iuyce of ground-*Iuie*, and drop it into the eye. But if any filme or web be growne before you vſe this medicine, then you ſhall take *Ginger* finely fearſt, and blow it into the eye, & it will breake the filme, then vſe the iuyce of *Iuie*, and it will weare it away.

CHAP.

Chap. 4.

Of the Pantas in Hawkes.

THe Pantas is a ſtopping or ſhortneſſe of winde in Hawkes. And the cure is, to giue her the ſcowring of *Selladine*, and the oyle of *Roſes*, & then to waſh her meat in the decoction of *Colts-foote*, and it will helpe her. The cure.

Chap. 5.

Of caſting the gorge.

THis is when a Hawke, either through meate which ſhe cannot diſgeſt, or through ſurfet in feeding, caſteth vp the meate which ſhe hath eaten, which is moſt dangerous: And the onely way to cure her is to keepe her faſting, and to feede her with a very little at once of warme bloody meate, as not aboue halfe a Sparrow at a time, and be ſure neuer to feed her againe till ſhe haue indued the firſt. The Cure.

Chap. 6.

Of all ſorts of Wormes or Fylanders in Hawkes.

WOrmes or Fylanders, which are a kinde of wormes in Hawkes, are either inward or outward: Inward, as in the guts or intrales, or outward, as in any ioynt or member: if they be inward, the ſcowring of *Aloes* is excellent to kill them, but if they be outward, then you ſhall bathe the place with the iuyce of the hearbe *Aweed* mixt with *Hony*.

Chap. 7.

Of all ſwellings in Hawkes feete, and of the Pin in the foote.

FOr the Pinne in the ſole of the Hawkes foote, or for any ſwelling vpon the foot, whether it be ſoft or hard, there is not any thing more ſoueraigne, then to bathe it in *Patch-greaſe* molten and applied to exceeding hot,

and then to fold a fine Cambricke rag dipt in the ſame greaſe about the ſore.

Chap. 8.

Of the breaking of a Pounce.

THis is a very dangerous hurt in Hawkes, eſpecially in Gerfaulcons; for if you ſhall breake or riue her Pounce, or but coape it ſo ſhort that ſhe bleed, though it be very little, yet it will indanger her life. The cure therefore is preſently vpon the hurt with a hot wyar to ſeare it till the bloud ſtaunch, and then to drop about it *Pitch* of Burgundy, and *waxe* mixt together, or for want thereof a little hard Marchants *Waxe*, and that will both heale it, and make the Pounce grow.

The Cure.

Chap. 9.

Of bones broke, or out of ioynt.

IF your Hawke haue any bone broke or miſplaced, you ſhall after you haue ſet it, bath it with the oyle of *Mandrag*, and *Swallowes*, mixt together, and then ſplent it, and in nine dayes it will be knit and haue gotten ſtrength.

Chap. 10.

Of inward bruiſings in Hawkes.

IF your Hawke either by ſtooping amongſt trees, or by the incounter of ſom fowle, get any inward bruiſe, which you ſhall know by the blacknes or bloodines of their mutes, you ſhall then annoynt her meate euery time you feede her with *Sperma-Cætæ* till her mutes be cleare againe, and let her meate be warme and bloudy.

Chap. 11.

Of killing of Lice.

IF your Hawke be troubled with lyce, which is a generall infirmity, & apparant, for you ſhal ſee them creepe all ouer on the outſide of her fethers if ſhe ſtand but in the

the aire of the fire. You ſhall bath her all ouer in warme *Water* and *Pepper* ſmall beaten, but be ſure that the *Water* be not too hot, for that is dangerous, neither that it touch her eie.

Chap. 12.

Of the Rye in Hawkes.

THis diſeaſe of the Rye in Hawkes proceedeth from two cauſes; the one is cold and poze in the head, the other is foule and moſt vncleanely feeding, the Faulconer being negligent to ſeake & cleanſe his Hawkes beake and nares, but ſuffering the blood and filthineſſe of meate to ſticke and cleaue thereunto. For indeede, the infirmitie is nothing elſe but a ſtopping vp of the nares, by meanes whereof the Hawke not being able to caſt and auoide the corruption of her head, it turnes to putrifaction, and in ſhort ſpace kils the Hawke: and this diſeaſe is a great deale more incident to ſhort-wing'd Haukes then too long. The ſignes whereof are apparant by the ſtopping of the nares. The cure is, to let your Hawke tyer much vpon ſinewie and bony meat, as the rumps of Mutton (the fat being taken away) or the Pynions of the wings of fowle, either being well lapt in a good handfull of *Parſeley* & forcing her to ſtraine hard in the tearing of the ſame, and with much diligence to cleanſe and waſh her beake cleane with water after her feeding, eſpecially if her meat were warme and bloudy. The Cure.

Chap. 13.

Of the Frounce.

THe Frounce is a cankerous vlcer in a Hawks mouth, got by ouer-flying, or other inflamation proceeding from the inward parts; ſcule and vncleane food is alſo a great ingenderer of this diſeaſe. The ſignes are a ſorenes in the Hawkes mouth, which ſore will be fur'd and co-

uer'd ouer with white ſcurfe or ſuch like filthineſſe, alſo if the vlcer be deepe and ill, the Hawke will winde and turne her head awrie, making her beake ſtand vpright: and the cure is to take *Allome*, and hauing beaten it to fine powder, mixe it with ſtrong *Wine-vinegar*, till it be ſomewhat thick, and then waſh and rubbe the ſore therewith, till it be raw, and that the ſcurfe be cleane taken away. Then take the iuyce of *Lolliam*, and the iuyce of *Radiſh*, and mixing it with *Salt*, annoynt the ſore therewith, and in few dayes it will cure it.

The Cure.

Chap. 14.

Of the Rhume.

THe Rhume is a continuall running or dropping at the Hawkes Nares, proceeding from a generall cold, or els from ouer-flying, and then a ſodaine cold taken thereupon: it ſtoppeth the head, and breeds much corruption therein; and the ſignes are the dropping before ſaid, and a generall heauineſſe, and ſometimes a ſwelling of the head. The cure is, to take the iuyce of *Beets*, and ſquirt it oft into the Hawkes nares. Then when you feed her, waſh her meate in the iuyce of *Broomewort*, and it will quickly purge, and ſet her ſound.

The Cure.

Chap. 15.

Of the Formicas in Hawkes.

THe Formicas in Hawkes is a hard horne growing vpon the beake of a Hawke, ingendered by a poyſonous and cankerous worme, which fretting the skin and tender yellow welt betweene the head and the beake, occaſioneth that hard horne or excreſſion to grow and offend the bird. The ſigne is the apparant ſight of the horn. And the cure is to take a little of a Buls *gall*, and beating it with *Aloes*, annoynt the Hawks beake therewith Morning

The Cure.

ning and Euening, and it will in very few daies take the horne away.

Chap. 16.

Of the Fiſtula in Hawkes.

THe Fiſtula in Hawkes is a cankerous hollow vlcer in any part of a Hawkes body, as it is in men, beaſts, or any other creature: the ſignes are a continuall mattering or running of the ſore, and a thinne ſharpe water like lie, which as it fals from the ſame will fret the ſound parts as it goeth. The cure is with a fine ſmall wyar, little ſtronger then a Virginall wyar, and wrapt cloſe about with a ſoft ſleaued ſilke, and the poynt blunt and ſoft, to ſearch the hollownes & crookednes of the vlcer, which the pliantneſſe of the wyar will eaſily do, and then hauing found out the bottome thereof, draw foorth the wyar, and according to the bignes ſſe of the Orifice make a tent of fine lint being wet, which may likewiſe bend as the wyar did, and be within a very little as long as the vlcer is deepe, for to tent it to the full length is ill, and will rather increaſe then diminiſh the Fiſtula: and therfore euer as the Fiſtula heales, you muſt take the tent ſhorter and ſhorter. But to the purpoſe, when you haue made your tent fit, you ſhall firſt take ſtrong *Allome* water, and with a ſmall ſerindge, ſquirt the ſore three or foure times therewith, for that will cleanſe, drie, and ſcoure euery hollowneſſe in the vlcer: then take the tent and annoynt it with the iuyce of the hearbe *Roberte*, *Vinegar*, and *Allome* mixt together, and it will drie vp the ſore. The Cure.

Chap. 17.

Of the priuie euill in Hawkes.

THe priuie euill in Hawkes is a ſecret heart ſickneſſe procured either by ouer-flying, corrupt food, cold, or

or other diſorderly keeping, but moſt eſpecialy for want of Stones or caſting in the due ſeaſon: the ſignes are heauineſſe of head, and countenance, euill enduing of her meate, and foule black mutings. The cure is to take Morning & Euening a good piece of a warme *Sheepes* heart, and ſteeping it either in new *Aſſes Milke*, or new *Goats Milke*, or for want of both, the new *Milk* of a red Cow, with the ſame to feede your Hawke till you ſee her ſtrength and luſt recouered.

The Cure.

CHAP. 18.

Of wounds in Hawkes.

HAwkes by the croſſe incounters of fowles, eſpecialy the Heron, by ſtooping amongſt Buſhes, Thornes, Trees, and by diuers ſuch accidents, doe many times catch ſore & moſt grieuous wounds: the ſignes whereof are the outward apparance of the ſame. And the cure is, if they be long and deepe, and in places that you may conueniently, firſt to ſtitch them vp, and then to taint them vp with a little ordinary *Balſamum*, and it is a preſent remedy. But if it be in ſuch a place as you cannot come to ſtitch it vp, you ſhal then onely take a little *Lint*, and dip it in the iuyce of the hearbe called *Mouſeare*, & apply it to the ſore, and it will in ſhort ſpace heale it. But if it be in ſuch a place as you can by no meanes bind any thing thereunto, you ſhall then onely annoynt or bath the place with the aforeſaid iuyce, and it will heale and dry vp the ſame in very ſhort time; the iuyce of the greene hearbe, called with vs, *Engliſh Tobacco*, will likewiſe doe the ſame: for it hath a very ſpeedy courſe in healing and cleanſing, as hath beene approued by diuers of the beſt Faulconers of this kingdom, & other nations.

The Cure.

CHAP.

Chap. 19.

Of the Apoplexie, or falling euill in Hawkes.

THe Apoplexy or falling euill in Hawkes, is a certaine vertigo or dizineſſe of the braine, proceeding from the oppreſſion of cold humors, which doe for a certaine ſpace numbe, & as it were mortifie the ſenſes: the ſignes are a ſodaine turning vp the Hawkes head, and falling from her pearch without bating, but onely with a generall trembling ouer all the body, and lying ſo, as it were, in a trance a little ſpace, ſhee preſently recouereth, and riſeth vp againe, but is ſicke and heauy many houres after. The cure therefore is, to gather the hearbe *Aſterion*, when the Moone is in the Waine, and in the ſigne *Virgo*, and taking the iuyce thereof to waſh your Hawkes meat therein, and ſo feed her, and it hath beene found a moſt ſouereigne medicine. The Cure.

Chap. 20.

Of the purging of Hawkes.

THere is nothing more needfull to Hawkes then purgations and cleanſings; for they are much ſubiect to fat and foulneſſe of body inwardly, and their exerciſe being much and violent, if there be neglect, and that their glut be not taken away, it will breede ſickneſſe and death; therefore it is the part of euery skilfull Faulconer to vnderſtand how, & when to purge his Hawke, which is generally euer before ſhee be brought to flying: and the moſt vſualleſt ſeaſon for the ſame, is before the beginning of *Autumne*; for commonly knowing-Gentlemen will not fly at the Partridge till Corne be from the ground, and if he prepare for the River early, hee will likewiſe begin about that ſeaſon: the beſt purgation then that you can giue your Hawke, is *Aloes Cicatrine*, wrapt vp in warme meate, the quantitie of a French Peaſe,

Peaſe, & ſo giuen the Hawke to eate euer the next morning after ſhe hath flowne at any traine, or taken other exercile, whereby ſhe might breake or diſſolue the greaſe within her.

Chap. 21.

For a Hawke that cannot mute.

IF your Hawke cannot mute, as it is a common infirmitie which happeneth vnto them, you ſhall take the leane of Porke, being newly kild, whileſt it is warme, to the quantitie of two Wall-nuts, and lapping a little *Aloes* therein, giue it to the Hawke to eate, & it will preſently helpe her. There be diuers good Faulconers, in this caſe, which will take the roots of *Selandine*, and hauing cleanſed it, and cut it into little ſquare pieces as big as Peaſe, doe ſteepe it in the Oyle of Roſes, and ſo make the Hawke ſwallow downe three or foure of them: and ſure this is very good and wholeſome, onely it will make the Hawke exceeding ſicke for two or three houres after. Neither muſt the Hawke be in any weake ſtate of body, when this latter medicine is giuen her. Alſo, you muſt obſerue to keepe your hawke at thoſe times exceeding warme, and much on your fiſt, & to ſeede her moſt with warme Birds, leaſt otherwiſe you clung and dry vp her intrailes too much, which is both dangerous and mortall.

Chap. 22.

The aſſureſt ſigne to know when a Hawke is ſicke.

HAwkes are generally of ſuch a ſtout, ſtrong, and vnyeelding nature, that they will many times couer and conceale their ſicknes ſo long til they be growne to that extremitie, that no helpe of Phyſicke or other knowledge can auaile for their ſafeties: for when the countenance, or decay of ſtomacke, which are the ordi-

nary

nary outward faces of infirmities, appeare, then commonly is the diſeaſe paſt remedy: therefore to preuent that euill, and to know ſickneſſe whileſt it may be cured, you ſhall take your Hawke, and turning vp her traine, if you ſee that her tuell or fundament either ſwelleth or looketh red, or if her eyes or nares likewiſe be of a fiery complexion, it is a moſt infallible ſigne that the Hawke is ſicke, and much out of temper.

Chap. 23.

Of the Feuer in Hawkes.

HAwkes are as much ſubiect to Feeuers, as any creatures whatſoeuer, and for the moſt part they proceede from ouer-flying, or other extraordinary heates, mixt with ſodaine coldes, giuen them by the negligence of vnskilfull keepers: and the cure is, to ſet her in a coole place, vpon a pearch wrapt about with wet cloathes, and feed her oft with a little at a time of Chickens fleſh, ſteeped in water, wherein hath bene ſoaked Cowcumber ſeedes. But if you finde by the ſtopping of her nares or head, that ſhe is offended more with cold then heat, then you ſhall ſet her in a warme place, and feed her with the bloody fleſh of Pigeons, waſht either in white wine, or in water, wherein hath bene boyled either Sage, Marioram, or Camomill. The cure.

Chap. 24.

To helpe a Hawke that cannot digeſt or indewe her Meate.

IF your Hawke be hard of digeſtion, and neither can turne it ouer, nor empty her panell, which is very often ſeene, you ſhall then take the heart of a Frog, and thruſt it downe into her throat, and pull it backe againe by a thread faſtened thereto once or twice ſodainely, and it will either make her endew or caſt her gorge preſently.

Chap.

Chap. 25.

Of the Gout in Hawkes.

HAwkes, especially those which are free and strong strikers, are infinitely subiect to the Gout, which is a swelling, knotting, and contracting of a Hawkes feet. The cure thereof is, to take two or three drops of bloud from her thy'-veine, a little aboue her knee, and then annoynt her feet with the iuyce of the hearbe *Hollyhocke*; and let all her Pearch be annointed also with *Tallow*, & the iuyce of that hearb mixt together. Now, if this disease (as oft it happeneth) be in a Hawkes wing, then you The cure. shal take two or three drops of blood from the veine vnder her wing, and then annoint the pinions and inlets thereof with *Vnguentum de Althea*, made very warme, which you may buy of euery Pothecary.

Chap. 26.

Of the staunching of bloud.

IT is a knowne experience amongst the best Faulconers, that if the Gerfaulcon shal but loose two or three drops of bloud, it is mortall, and the Hawke will die soudainely after; which to preuent, if the bloud proceede from any pounce, which is most ordinary, then vpon the instant hurt, you shall take a little hard Merchants wax, and drop it vpon the soare, and it will presently stop; if it be vpon any other part of the Hawkes body, you shall clap thereunto a little of the soft Downe of a Hare, and it will immediately stanch it; and without these two things a good Faulconer should neuer goe, for they are to be vsed in a moment. And thus much of the Hawke, and her diseases.

The end of the Hawke.

Of Bees.

CHAP. I.

Of the nature, ordering, and preseruation of Bees.

OF all the creatures which are behoueful for the vse of man, there is none more necessary, wholesome, or more profitable then the Bee, nor any lesse troublesome, or lesse chargeable. To speak then first of the nature of Bees, it is a creature gentle, louing, & familiar about the man, which hath the ordering of them, so he come neate, sweet, and cleanely amongst them: otherwise, if he haue strong, and ill-smelling sauours about him, they are curst and malicious, and wil sting spitefully: they are exceeding industrious and much giuen to labor, they haue a kind of gouernment amongst themselues, as it were a wel ordered common-wealth: euery one obaying & following their king or commander, whose voice (if you lay your eare to the Hiue) you shal distinguish from the rest, being louder and greater, and bearing with a more solemne measure. They delight to liue amongst the sweetest hearbs, and flowers that may be; especially Fennel, and Wal gilly-flowers, and therefore their best dwellings are in Gardens: and in these Gardens, or neere adioyning thereunto, would be diuers Fruit trees growing, chiefly plumbe-trees, or peach trees, in which, when they cast, they may knit without taking any faire flight, or wandring to finde out their Rest: this Garden also would be wel fenced, that no Swine nor other cattle may come therein, as wel for ouerthrowing their *Hiues*, as also for offending them

The nature of Bees.

them with other ill-fauours. They are alſo very tender, and may by no meanes endure any cold: wherefore you muſt haue a great reſpect to haue their houſes exceeding warme, cloſe, and tight, both to keepe out the froſts and ſnowes, as alſo the wet and raine; which if it once enter into the Hiue, it is a preſent deſtruction.

Of the Bee-Hiue.

To ſpeake then of the Bee-hiue, you ſhall know there be diuers opinions touching the ſame, according to the cuſtomes and natures of Countries; for in the Champaine Countryes, where there is very little ſtore of woods, they make their Hiues of long Rye-ſtraw, the roules being ſowed together with Bryers; and theſe Hiues are large and deepe, and euen proportioned like a *Sugar-loafe*, and croſſe-bard within, with flat ſplints of wood, both aboue and vnder the middeſt part: in other Champain Countryes, where there wanteth Rye-ſtraw, they make them of Wheat-ſtraw, as in the Weſt Countryes; and theſe Hiues are of a good compaſſe, but very low and flat, which is naught; for a Hiue is euer better for his largeneſſe, and keepeth out rayne beſt, when it is ſharpeſt. In the wood-Countryes, they make them of clouen haſſels, watteld about, broad ſplints of Aſh, and ſo formed as before I ſaid, like a *Sugar-loafe*. And theſe Hiues are of all other the beſt, ſo they be large and ſmooth within, for the ſtraw-Hiue is ſubiect to breed Mice, and nothing deſtroyeth Bees ſooner then they, yet you muſt be gouerned by your ability, and ſuch thinges as the ſoyle affoords.

Of the trimming of the Hiue.

Now for the Wood-Hiue, which is the beſt, you ſhall thus trim me and prepare it for your Bees: you ſhall firſt make a ſtiffe morter of Lime and Cow-dung, mixed together; and then hauing croſſe-barred the Hiue within, daube the cutſide of the Hiue with the morter, at leaſt

leaſt three inches thicke, downe cloſe vnto the ſtone, ſo that the leaſt aire may not come in: then taking a Rye-ſheafe, or Wheate-ſheafe or two that is balked and not thraſhed, and chuſing out the longeſt Strawes, bind the eares together in one lumpe, put it ouer the Hiue, and ſo as it were thatch it all ouer, and fixe it cloſe to the Hiue with an old hoope, or garth, and this will keepe the Hiue inwardly as warme as may be: alſo before you lodge any Bee in your hiue, you ſhall perfume it with *Iuniper*, and rub it all within with *Fennell*, *Iſope*, and *Time-flowers*, and alſo all the ſtone vpon which the Hiue ſhall ſtand.

The placing of Hiues.

Now for the placing of your Hiues, you ſhall take three long thicke ſtakes, cut ſmooth and plaine vpon the heads, and driue them into the earth triangularwiſe, ſo that they may be about two foot aboue the ground: then lay ouer them a broad ſmooth pauing ſtone, which may extend euery way ouer the ſtakes about halfe a foot, and vpon the ſtone ſet your Hiue, being leſſe in compaſſe then the ſtone by more then ſixe inches euery way; and ſee the doore of your Hiue ſtand directly vpon the riſing of the Morning-Sunne, inclining a little vnto the Southward: and be ſure to haue your Hiues wel ſheltred from the North-winds, and generally from all tempeſtuous weather: for which purpoſe if you haue ſheads to draw ouer them in the winter, it is ſo much the better. And you ſhall place your Hiues in orderly rowes one before another, keeping cleane Allies betweene them euery way, ſo as you may walke and view each by it ſelfe ſeuerally.

The caſting of Bees, and ordering of Swarmes.

Now for the caſting of your Bees, it is earlier or later in the yeare, according to the ſtrength and goodneſſe of the ſtocke, or the warmth of the weather. The vſuall time for caſting, is from the beginning of May, till the

middle of Iuly: and in all that time you muſt haue a vigilant eye, or els ſome ſeruant to watch their riſing, leaſt they fly away, and knit in ſome obſcure place farre from your knowledge. Yet if you pleaſe you may know which Hiues are ready to caſt a night before they doe caſt, by laying your eare after the Sunne ſet to the Hiue, and if you heare the Maſter-Bee aboue all the reſt, in a higher and more ſolemne note, or if you ſee them lie forth vpon the ſtone, and cannot get into the Hiue, then beſure that ſtocke will caſt within few houres after.

As ſoone as you can perceiue the ſwarme to riſe, and are got vp into the ayre (which will commonly be in the height and heat of the Sun) you ſhall take a braſſe Baſon, Pan or Candleſticke, and making a tinckling noiſe thereupon, and they are ſo delighted with Muſick, that by the ſound therof, they will preſently knit vpon ſome branch or bough of a tree. Then when they are all vpon one cluſter, you ſhall take a new ſweet Hiue well dreſt, and rub'd with *Hony* and *Fennell*, and ſhake them all into the Hiue, then hauing ſpread a faire ſheet vpon the ground, ſet the Hiue thereon, and couer it all cleane ouer cloſe with the ſheet, and ſo let it ſtand till after Sunne-ſet, at which time the Bees being gathered vp to the top of the Hiue (as their nature is) you ſhall ſet them vpon the ſtone, hauing rub'd it well with *Fennell*, and then daube it cloſe round about with *Lime* and *Dung* mixt together, and onely leaue them a dore or two to iſſue out and in at. There be ſome ſtockes which will caſt twice or thrice, and foure times in a yeare, but it is not ſo good, for it will weaken the ſtocke too much, therefore to keepe your ſtockes in ſtrength and goodneſſe, it is good not to ſuffer any to caſt aboue twice at the moſt.

Againe, you ſhall with pieces of Brick, or other ſmooth ſtones,

ſtones, raiſe the ſtocke in the night three or foure inches aboue the ſtone, and then daube it cloſe againe, and the Bees finding houſe-roome will fall to worke within, and not caſt at all; and then will that ſtocke be worth two others: and in the ſame manner, if you had the yeare before any ſmall ſwarmes, which are likely to caſt this yeare; or if you haue any earely ſwarmes this yeare, which are likely to caſt at the latter end of the yeare: both which are often found to be the deſtruction of the ſtockes: in either of theſe caſes, you ſhall enlarge the Hiue as it is before ſaid, by raiſing it vp from the ſtone, and it will not onely keepe them from caſting, but make the ſtocke better, and of much more profit, for that Hiue euer which is of the moſt waight is of the beſt price.

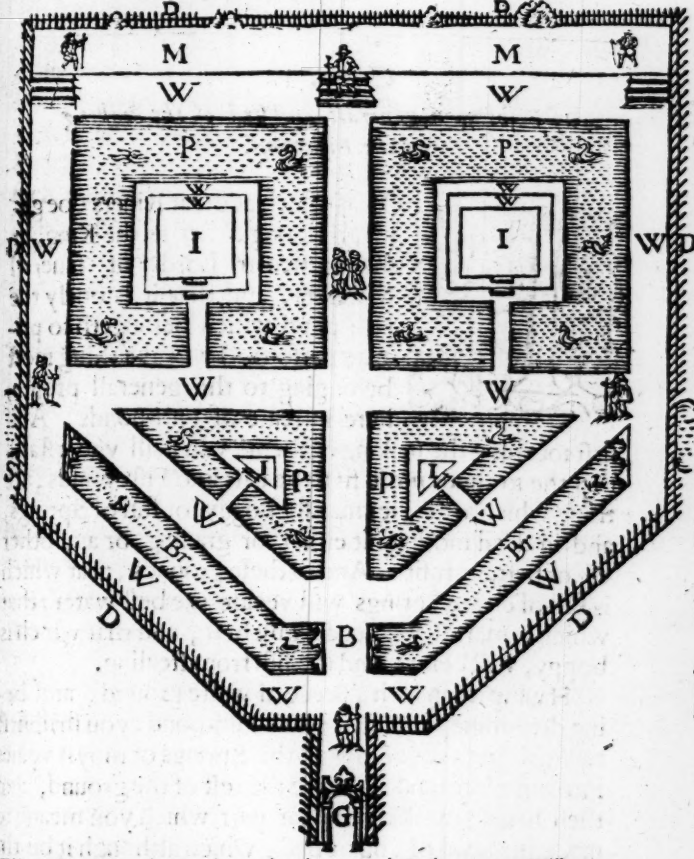
Now when you haue mark't out thoſe old ſtockes which you intend to ſell, (for the oldeſt is fitteſt for that purpoſe) you ſhall know that the beſt time to take them, is at *Michaelmas*, before any froſts hinder their labour: and you ſhall take them euer from the ſtone in the darke of night, when the ayre is cold, and either drowne them in water, or ſmoother them with *Fuſbals*, for to chaſe them from their Hiues, as ſome doe is naught, becauſe all ſuch Bees as are thus frighted from their Hiues doe turne robbers and ſpoyle other ſtocks, becauſe that time of the yeare will not ſuffer them to labour and get their owne liuings. Of felling hiues.

Now if you haue any weake ſwarmes which comming late in the yeare cannot gather ſufficient of Winter proui-ſion; in this caſe, you ſhall feede ſuch ſtockes by daily ſmearing their ſtone before the place of their going in and out with *Hony* and *Roſe-water* mixt together, and ſo you ſhall continue to doe all the ſtrength of Winter, till the warmth of the Spring, and the Sunne-ſhine bring The preſeruation of weake ſtocks.

foorth of Flowers for them to labour vpon. You ſhall continually looke that no Mice, Dares, and ſuch like vermine breed about Hiues, for they are poyſonous, and will make Bees forſake their Hiues.

Now laſtly, if any of your ſtockes happen to dye in the Winter (as amongſt many, ſome muſt quaile) you ſhall not by any meanes ſtirre the ſtocke, but let it remaine till the Spring, that you ſee your Bees beginne to grow buſie; then take vp the dead ſtocke, and trimme it cleane from all filth, but by no meanes ſtirre or cruſh any of the Combes: then daſh the Combes, and beſprinkle them, and beſmeare all the inſide of the Hiue with *Hony*, *Roſe-water*, and the iuyce of *Fennell*, mixt together, and daube all the ſtone therewith. Alſo then ſet downe the hiue againe, and daube it as if it had neuer bene ſtirred, and be well aſſured that the firſt Swarme which ſhall riſe, either of your owne, or of any Neighbour of yours within the compaſſe of a mile, it will knit in no place, but within that hiue, and ſuch a ſtocke will be worth fiue others, becauſe they find halfe their worke finiſht at their firſt entrance into the hiue, and this hath bene many times approued by thoſe of the moſt approuedſt experience. And thus much touching the Bee and his Nature.

A Platforme for Ponds, which the Printer hath added to this ensuing discourse, for the better satisfaction and delight of such as having a conuenient plot of ground for the same purpose shall be desirous to make any Ponds for the increase and store of Fish.



G. The Gate.

D. The Ditch and Quick-set hedge.

W. The Walkes.

B. The Bridge.

Br. The Brooke.

P. The Ponds.

I. The Pensles.

M. The Mount.

S. The Spring-head.

The Walkes about the Ponds may be planted with Fruite-trees or Willowes.

Of Fishing.

Chap. 1.

Of Fishing in generall, and first of the making of the Fish pond.

FOr as much as great Riuers doe generall belong either to the King, or the particular Lords of seuerall Manners, and that it is onely the Fish pond which belongeth to priuate persons, I will as a thing most belonging to the generall profite, here intreate of Fish-ponds. And first touching the making of them, you shall vnderstand that the grounds most fit to be cast into Fish ponds, are those which are either marish, boggy, or full of Springs, and in deed most vnfit either for grazing, or any other vse of better profit. And of these grounds, that which is full of cleare Springs will yeelde the best water: that which is marish will feede Fish best, and that which is boggy, will best defend the fish from stealing.

Hauing then such a peece of waste ground, and being determined to cast it into a Fish-pond: you shall first by small trenches, draw all the Springs or moyst veines into one place, and so draine the rest of the ground, and then hauing mark'd out that part which you meane to make the head of your pond, which although it be the lowest

loweſt part in the true leuell of the ground, yet you muſt make it the higheſt in the eye; you ſhall firſt cut the trench of your Flood-gate, ſo as the water may haue a ſwift fall, when you meane at any time to let it out; and then on each ſide of the trench driue in great ſtakes of ſixe foote in length, and ſixe inches ſquare, of Oke, Aſhe, or Elme, but Elme is the beſt: and theſe you muſt driue in rowes within foure foote one of another, at leaſt foure foote into the earth, as broad, and as farre off each ſide the Floud-gate as you intend the head of your Pond ſhall goe: then beginne to digge your Pond of ſuch compaſſe as your ground will conueniently giue leaue, and all the earth you digge out of the Pond, you ſhall carry and throw amongſt the ſtakes, and with ſtrong rammers ramme the earth hard betweene them till you haue couered all the ſtakes; then driue in as many moe new ſtakes beſides the heads of the firſt, and then ramme more earth ouer and aboue them alſo; and thus doe, with ſtakes aboue ſtakes, till you haue brought the head ſides to ſuch a conuenient height as is fitting. And in all this worke haue an eſpeciall care that you make the inſide of your bankes ſo ſmooth, euen, and ſtrong, that no current of the water may weare the earth from the ſtakes.

You ſhall digge your Fiſh Pond not aboue eight foote deepe, and ſo as it may carry not aboue ſixe foote water.

You ſhall paue all the bottome, and bankes of the Pond with large ſods of Flot-graſſe, which naturally growes vnder water, for it is a great feeder of Fiſh: and you ſhall lay them very cloſe together, and pinne them downe faſt with ſmall ſtakes and windings. You ſhall vpon one ſide of the Pond, in the bottome, ſtake

fast diuerse Bauens or Faggots of brush wood, wherein your fish shall cast their spawne, for that will defend it from destruction; and at another place you shall lay sods vpon sods, with the grasse sides together, in the bottome of the Pond, for that will nourish and breed Eeles: and if you sticke sharpe stakes slant-wise by euery side of the Pond, that will keepe theeues from robbing them. When you haue thus made your Ponds, and haue let in the water, you shal then store them. Carpe, Breame and Tench by themselues: and Pike, Pearch, Eele, and Tench by themselues: for the Tench being the Fishes Physition is seldome deuoured: also in all Ponds you shall put good store of Roch, Dace, Loch, and Menow, for they are both food for the greater Fishes, and also not vncomely in any good mans dish. You shal to euery melter put three Spawners, and some put fiue, and in three yeares the increase will be great, but in fiue hardly to bee destroyed. And thus much for Ponds and their storings.

Chap. 11.

Of the taking of all sorts of Fish, with Nets, or otherwise.

IF you will take Fish with little or no trouble, you shall take of *Salarmoniacke* a quarter of an ounce, of young *Chines* as much, and as much of a Calues Kell, and beate them in a Morter vntill it be all one substance, and then make Pellets thereof, and cast them into any corner of the Pond, and it wil draw thither all the Carpe, Breame, Cheuin, or Barbell, that are within the Water, then cast your shoue-net beyond them, and you shall take choyse at your pleasure. If you will take Roch, Dace, or any small kinde of Fish, take Wine Lees and mixe it with Oyle, and hang it in a Chimney-corner, till it be drye, or

looke

looke blacke, and then putting it into the water, they will come ſo abundantly to it that you may take them with your hand. If you will take Trout, or Grailing, take two pound of Wheate-bran, halfe ſo much of white Peaſe, and mixing them with ſtrong Brine, beate it till it come to a perfect paſte; then put pellets thereof into any corner of the water, and they will reſort thither, ſo as you may caſt your net about them at your pleaſure. But if you will take either Pearch or Pike, you ſhall take ſome of a beaſts Liuer, blacke Snailes, yellow Butter-Flies, Hogges bloud, and Opoponax, beate them all together, and hauing made a paſte thereof, put it into the water, and be aſſured that as many as are within ſo tie paces thereof will preſently come thither, and you may take them at your pleaſure.

Laſtly, if you take eight drams of Cocke-ſtones, and twice ſo much of the kirnels of Pynapple trees burnt, and beare them well together, and make round balles thereof, and put it into the water, either freſh or ſalt, any Salmon or great Fiſh will preſently reſort thither: and you may take them either with net or otherwiſe.

Alſo, it is a moſt approued experiment, that if you take bottles made of Hay, and greene Oziers, or Willow mixt together, and fincke them downe in the midſt of your Pond, or by the banke ſides, and ſo let them reſt two or three daies, hauing a cord ſo faſtened vnto them that you may twitch them vpon land at your pleaſure: and beleeue it, all the good Eeles which are in the Pond will come into thoſe Bottles, & you ſhall take them moſt abundantly: and if you pleaſe to bait thoſe bottles, by binding vp Sheepes guts, or other garbage of beaſtes within them, the Eeles will come ſooner, and you may

fast diuerse Bauens or Faggots of brush wood, wherein your fish shall cast their spawne, for that will defend it from destruction; and at another place you shall lay sods vpon sods, with the grasse sides together, in the bottome of the Pond, for that will nourish and breed Eeles: and if you sticke sharpe stakes slant-wise by euery side of the Pond, that will keepe theeues from robbing them. When you haue thus made your Ponds, and haue let in the water, you shal then store them. Carpe, Breame and Tench by themselues: and Pike, Pearch, Eele, and Tench by themselues: for the Tench being the Fishes Physition is seldome deuoured: also in all Ponds you shall put good store of Roch, Dace, Loch, and Menow; for they are both food for the greater Fishes, and also not vncomely in any good mans dish. You shal to euery melter put three Spawners, and some put fiue, and in three yeares the increase will be great, but in fiue hardly to bee destroyed. And thus much for Ponds and their storings.

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may draw them oftner, and with better assurance. There be other wayes besides these to take Eeles, as with Weeles, with the Eele-speare, or with bobbing for them with great wormes; but they are so generally knowne and practised, & so much inferiour to this already shewed, that I hold it a needlesse and vaine labour to trouble your eares with the repetition of the same; and the rather, sith in this worke I haue laboured onely to declare the secrets of euery knowledge, and not to runne into any large circumstance of those thinges which are most common and familiar to all men. And thus much of Fish and Fish-ponds, & their generall knowledge.

Now as touching the Angle and the secrets thereto belonging, you shall finde it at large handled in the next Booke called *Countrey Contentments*.

FINIS.

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Or,

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By G M.

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LONDON,
Printed by *Nicholas Okes*, for IOHN HARISON, at the golden Vnicorne in Pater-noster-row. 1631.

To the thrice Noble

and vertuous Maintainer and furthe-

rer of all lawfull and worthy pleasures Sir

THEODORE NEVVTON Knight.

SIr, howsoeuer banished by the necessitie of mine affaires from your presence (in which once I built the best and happiest estate of my life, beginning to loue it because I found you did imploy it, yet can I neuer be seperated from your remembrance, because it is all the ioy which is likely to liue and die with me; witnesse my Soule that shewes me no worldly lesson, so much as the beneficiall fauours I haue reapt from your vertue, which to acknowledge with a more earnest and serious feruencie, I haue spent this poore Booke to kisse your hand, and speake to you in plaine and short rules those speeches which you haue beene willing to heare from my mouth, not doubting but they shall giue you satisfaction, and make me liue both with you, and the inheritors of your vertues to the last age: they are true and easie, drawne from these last times, not borrowed to bestow with a flattering insinuation, but faithfully drawne from art, and from those experiments which I once thought should haue kept in the

graue with me: but hauing liued so long from your eies which I protest my soule truly loues) I studied to thinke what gratefull Embassador I might send to speake I lou[ed] you, and finding none which I thought you would beste[em] heare then this, I furnisht him with the best instructions I could, and sent him onely attired in his owne vertue to tell you what I doe, and what I will doe is euer to liue and die at your Seruice.

Gervase Markham.

To the beſt diſpoſed Readers.

MAny and ſundry may be the conſtructions and cenſures of this Booke (Courteous and well diſpoſed Reader) becauſe I haue in former time written ſo largely of ſome part of the ſubiect contained herein; but I would haue no man miſtaken in his owne preiudicate opinion, but truly vnderſtand that this is neither epitomy, relation, extraction, nor repetition either of mine owne, or any other Author whatſoeuer, but a plaine forme of doing things by a neerer and more eaſie and ſafer way then euer hath hitherto beene diſcouered, drawne from our lateſt experiments in true Art, and finding a neerer way to our ends by many degrees: for what before could not be done in diuers yeares, here you ſhall ſee how to effect in few moneths, & what we beſtowed moneths vpon to ſeeke, now we may finde in few weekes. The reaſons which induc't me to this labour were theſe, firſt to giue ſatisfaction to the friends and fauorers of my former works, that when they heare men diſcourſe of theſe paſſages to our delights, they may yet know that the firſt was neither ill nor vaine, but what now is deriued from it, and that albe we may be leſſe curious, yet the curioſity is not altogether vnprofitable, but both ioyned together may make an abſolute vnderſtanding. Then to giue eaſe and light burthen to the heauie and duller memory, whom the tediouſnes of a great worke may diſcourage:

and laſtly becauſe my former labour is vtterly out of print, whereby the Kingdome is depriued the benefit I intended: I thought good to haue ſomething liuing of leſſe price, and as great (perhaps greater) profit, which ſhould ſatisfie all vertuous minds in any thing required, within the compaſſe of thoſe former ſhewed Recreations; not doubting but howſoeuer Men may firſt giue light ſuruay to theſe papers, yet if they once take paine to read them, they will after affirme them worthy of choice boſomes: And with this ſetled reſolution I leaue them to thy view, and thee to thine owne reſt.

Euer one, *Gerualſe Markham*

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Countrey

COVNTREY

CONTENTMENTS:

OR,

The Husband-Mans Recreation: contayning the wholesome Exercises, in which any man ought to Recreate himselfe, after the toyle of more serious businesse.

The first Booke.

CHAP. I.

Of Hunting, and of all the particular knowledges belonging thereunto.

HAuing already in my former Worke of the *English-Husbandman*, set forth in sufficient largenesse, the toile and industrious labours of the carefull *Husbandman*, and how both his minde and body ought in every season to be imployed, for the effecting and bringing foorth of those wholesome profits, which God hath appointed for the maintenance of him and his Family. And in the Booke last going before, called *Cheape and Good*, shewed the Cure and maintenance of his Cattle and creatures bred by him, and his labours, through Gods great Blessings.

I thinke it not amiſſe here to ſpeake of thoſe lawfull and praiſe-worthy exerciſes or recreations, in which (with Gods feare, and care of not offending his neighbour) he may ſoberly ſpend thoſe houres which he ſhall beſtowe in the cheerefull reuiuing & ſtirring vp of his ſpirits, being formerly wearied or fordone with the heauy toile of more vnpleaſant (though more profitable) ſtudies, both becauſe it is intended that a man ſo good & vertuous as the true *Husband-man* is, ſhould not be depriued any comfort, or felicity, which the earth, or the creatures of the earth can affoord to him, being indeed the right Lord and Maſter (next vnder God) of them both; as alſo for the neceſſity thereof, beeing the ſtrength and inabler of the minde, to vndergoe the weightieſt affaires that can any way poiſe, or beare downe imagination.

The neceſſity and vſe of recreation.

Hence it comes that the heathen Sages or wiſe men of the firſt world, founded with their Lawes, their feaſts, with their *Labours* their *Olimpicks*, and with their warfare, their *Triumphs*, nay, at this day wee ſee the ſeuereſt pedants will giue their ſchollers their play-day; and the moſt couetous maſters will binde their hirelings but to certaine houres; euery toile exacting (as out of duty) ſome time for recreation: Neither was there any *Stoicke* found ſo cruell, either to himſelfe or nature, but at ſome time or other he would vnbend his minde, & giue it liberty to ſtray into ſome more pleaſant walkes, then the myry waies of his owne wilfull reſolutions. As I haue obſerued in the courſe of many men of exceeding ſtrickt liues, to whom all bee ſeuerity of profeſſion, infirmity of body, and age, or ſuch like haue taken away all actuall recreation, yet haue their mindes begot vnto themſelues ſome habites or cuſtomes of delight, which haue in as large meaſure giuen them contentment,

ment, whether they were their owne, or borrowed, as if they had been the ſole Actors of the ſame.

But why wade I thus far in this vntroubled ſtreame; let it ſuffice then, that as Recreation is moſt neceſſary, ſo to none it is more due, then to the *Husband-man*: and herein you may not expect, that I will goe about to elect and preſcribe what recreation he ſhall vſe, binding all men to one pleaſure? God forbid: my purpoſe is meerly contrary: for I know in mens recreations, that nature taketh to her ſelfe an eſpeciall prerogatiue, and what to one is moſt pleaſant, to another is moſt offenſiue; ſome ſeeking to ſatisfie the mind, ſome the body, and ſome both in a ioynt motion.

I will therefore, as far as my skill and knowledge will extend, figure forth to the life euery ſeuerall recreation, leauing no limbe or member imperfect, and then leaue vnto the choiſe of the *Husband-man*, that which ſhall beſt agree with his ſpirit, not doubting but as they are in themſelues lawfull & modeſt, ſo he will vſe them according to the worthines of his owne and their vertues. Now for as much as theſe ſports are many and diuers, I thinke it not amiſſe to begin & giue that recreation precedencie of place, which in mine opinion (how euer it may be eſteemed partial) doth many degrees go before, & preceede all other, as being moſt royall for the ſtatelines thereof, moſt artificiall for the wiſdome & cunning thereof, and moſt manly & warlike for the vſe and indurance thereof. And this I hold to be the hunting of wild Beaſts in generall: of which, as the Chaſes are many, ſo will I ſpeake of them particularly in their proper places. The praiſe of Hunting.

But before I proceed any further I will tell you what *Hunting* is, and from the true definition thereof, make your waie more eaſie and plaine into the hidden Art What Hunting is.

of the same. *Hunting* is then a curious search or conqueſt of one Beaſt ouer another, perſued by a naturall inſtinct of enmitie, and accompliſhed by the diuerſities and diſtinction of ſmells onelie, wherein *Nature* equally deuiding her cunning giueth both to the offender, and offended ſtrange knowledge both of offence and ſafety. In this recreation is to be ſeene the wonderfull power of God in his creatures, and how far rage and pollicie can preuaile againſt innocency and wiſedom: But to proceed to my maine purpoſe, you ſhall vnderſtand that as the Chaſes are many which we daily hunt, as that of the *Stagge*, the *Buck*, the *Roe*, the *Hare*, the *Fox*, the *Badger*, the *Otter*, the *Boare*, the *Goate*, and ſuch like, ſo the perſuers or conquerors of theſe chaſes (ſpeaking of *Hunting* only) are but one kinde of creatures, namely, *Hounds*. Now of theſe *hounds* there are diuers kinds, as the *Slow-hound*, which is a large great dog, tall, & heauy, & are bred for the moſt part in the Weſt countries of this Kingdome, as alſo in *Ches-ſhire*, & *Lanca-ſhire*, and moſt woodland, and Mountanous Countryes: then the middle ſiz'd dog, which is more fit for the Chaſe, being of a more nimble compoſure, and are bred in *Worſter-ſhire*, *Bedford-ſhire*, & many other well mixt ſoiles, where the Champaigne, and couert are of equall largeneſſe, then the light, nimble, ſwift ſlender dog, which is bred in the North parts of this kingdome, as *Yorke-ſhire*, *Cumberland*, *Northumberland*, and many other plaine champaign countryes: and laſtly the little *Beagle*, which may be carried in a mans gloue, and are bred in many countries for delight only, being of curious ſents, and paſſing cunning in their hunting, for the moſt part tiring, (but ſeldome killing) the prey, except at ſome ſtrange aduantage.

The diuerſitie of Chaſes.

The diuerſitie of hounds.

Theſe *hounds* are of diuers colours, and according to their

their colours, ſo we elect them for the Chaſe: as thus for example. The white hound, or the white with blacke ſpots, or the white with ſome few liuer ſpots are the moſt principal beſt to compoſe your Kennel off, and wil indeede hunt any Chaſe exceeding well, eſpecially the *Hare, Stagge, Bucke, Roe*, or *Otter*, for they will well endure both woods, and waters: yet if you demand which is the beſt, and moſt beautifull of all colours for the generall Kennell, then I anſwer the white with the blacke eares, and blacke ſpot at the ſetting on of the taile, and are euer found both of good ſent, and good condition. The blacke hound, the blacke tann'd, or he that is all liuer-hewd, or the milke white, which is the true *Talbot*, are beſt for the ſtring or lyam, for they doe delight moſt in blood, and haue a naturall inclination to hunt dry-foot, and of theſe the largeſt are euer beſt, and moſt comely. The griſſeld which are euer moſt commonly ſhag-haird, or any other colour, whether it be mixt, or vnmixt, ſo it be ſhag-haird are the beſt varminers, and therefore are choſen to hunt the *Fox*, *Badger*, or any other hot ſent: they are alſo exceeding good & cunning finders: and therefore of *Huntſmen* not thought amiſſe to haue one or a couple in euery Kennell.

For the ſhape of your *Hound*, it muſt be according to the climate where he is bred, and according to the naturall compoſition of his body, as thus, if you would chooſe a large, heauy, ſlow, true *Talbot*-like hound, you muſt choſe him which hath a round, big, thick head, with a ſhort noſe, vpriſing, and large open noſtrels, which ſhews that he is of a good and quick ſent, his eares exceeding large, thin, and down hanging much lower then his chaps, and the flews of his vppet lips almoſt two inches lower then his nether chaps, which ſhews a merry deep mouth,

The ſhape and proportion of Hounds.

mouth, and a loud ringer, his backe ſtrong and ſtraight, yet rather riſing, then inwardly yeelding, which ſhewes much toughneſſe and indurance, his fillets would be thick, and great, which approue a quicke gathering vp of his legs without paine, his huckle bones round, and hidden, which ſhews he will not tyer, his thighs round, and his hams ſtraight, which ſhews ſwiftneſſe, his taile long, and ruſh growne, that is big at the ſetting on, and ſmall downward which ſhews a perfect ſtrong chine, and a good wind, the haire vnder his belly hard, & ſtiffe, which ſhews willingnes and ability to endure labour in all weathers, and in all places, his legs large, and leane, which ſhews nimblenes in leaping, or climing, his foot round, high knuckled, and well clawd, with a dry hard ſoale, which ſhews he will neuer ſurbait, and the generall compoſure of his body, ſo iuſt, and euen, that no leuell may diſtinguiſh whether his hinder, or fore-part be the higher; all which ſhew him of much ability, & that in his labour he will ſeldome finde any annoyance: but if you will chuſe a ſwift light *hound*, then muſt his head be more ſlender & his noſe more long, his eares & flews more ſhallow, his backe broad, his belly gaunt, his taile ſmall, his ioynts long, his foot round, and his generall compoſure much more ſlender, and Gray-hound-like: and thus in the generallity for the moſt part, and all your *Yorke ſhire* hounds, whoſe vertues I can praiſe no further then for ſent and ſwiftnes, for to ſpeake of their mouths, they haue onely a little ſharpe ſweetnes like a Iigge, but no depth or ground like more ſolemne muſicke.

The compoſition of kennells.

Now to ſpeake of the compoſition of Kennels, though there is a moſt certaine knowne better-hood, yet it is to men like bewty, each allowing beſt of that which agrees with his owne affection: therefore when you intend to

set vp a Kennell of *Hounds*, examine your fancy what be the best pleasures you take in *Hounds*, whether it be cunning in *Hunting*, sweetnesse, loudnesse, or deepenesse of cry, whether it be for the training of your horse, or else but meerly for the exercise of your owne body, being otherwise subiect to grossenesse and infirmitie, if it bee for cunning *Hunting*, you shall breed your dogges from the slowest and largest of the Northern *hounds*, and the swiftest and slendrest of the West country *Hounds*, being both male, and female approued to be stanch, faire, and euen running, of perfect fine sent, and not giuen to lie off, or looke for aduantages. These *hounds* will neither bee so exceeding slow, that you shall wast many dayes without some fruit of your labour, nor so vnnimble, that you shal need men to helpe them ouer euery hedge, as I haue many times seen to my much wonder, but hauing both strength and nimblenesse, will hold you in continuall delight and exercise: for these middle sized dogs are neither so swift that they will far outrunne the sent, and so fetch many tedious rings to recouer it, nor so slow, that for want of speed they will loose the sent, and let it grow cold by their owne lasinesse, but being euer and anon vpon it, bring the Chase to such a narrow exigent, that the poore Beast shall be forc't to try all the skil nature or strength hath lent it to preserue life: and the *hounds* on the other side all their paines, and the *huntsmans* cunning, to vndoe the intricate doubles, skippes, squats, & windings with which they shall be perplexed. and in this mediocrity of *hunting*, shall your eie (if the couert be not to extreame thick) take a perfect viewe of all the art and cunning in euery passage, so that I conclude the middle sized hound, of good strength, sound mouth, and reasonable speed, which will make a horse

I he middle sized dog for cunning.

gallop fast, and not runne, is the best for the true Art and vse of *Hunting*.

For sweetnesse of cry.

If you would haue your Kennell for sweetnesse of cry, then you must compound it of some large dogges, that haue deepe solemne mouthes, and are swift in spending, which must as it were beare the base in the consort, then a double number of roaring, and loud ringing mouthes, which must beare the counter tenor, then some hollow plaine sweete mouthes, which must beare the meane or middle part: and soe with these three parts of musicke you shall make your cry perfect: and herein you shall obserue that these *Hounds* thus mixt, doe runne iust and euen together, and not hang off loose one from another, which is the vildest sight that may be, and you shall vnderstand that this composition is best to be made of the swiftest & largest deep mouthed dog, the sloweſt middle sized dog, and the shortest legd slender dog, amongst these you cast in a couple or two of small singing Beagles, which as small trebles may warble amongst them: the cry will be a great deale the more sweeter.

For lowdnesse of cry.

If you would haue your Kennell for loudens of mouth you shall not then choose the hollow deepe mouth, but the loud clanging mouth, which spendeth freely, and sharpely, and as it were redoubleth in the vtterance: and if you mix with them the mouth that roareth, and the mouth that whineth, the crye will bee both the louder, and smarter; and these *Hounds* are for the most part of the middle size, neither extreame tall, nor extreame deepe flewed, such as for the most part your *Shrop shire*, & pure *Worster-shire* dogs are, and the more equally you compound these mouthes, hauing as many *Roarers*, as *Spenders*, and as many *whiners*, as of either of the

the other, the louder, and pleasanter your cry will be, especially if it be in sounding tall woods, or vnder the eccho of Rocks.

If you would haue your Kennell for depth of mouth, then you shall compound it of the largest dogges, which haue the greatest mouthes, and deepest flews, such as your *West Countrie*, *Ches-shire*, and *Lanca-shire* dogges are, and to fiue or sixe couple of base mouthes, you shall not adde aboue two couple of Counter-tenors, as many Meanes, and not aboue one couple of Roarers, which being heard but now and then, as at the opening or hitting of a sent, will giue much sweetnesse to the solemnes, and grauenesse of the cry, and the musick thereof, will bee much more delightfull to the eares of euery beholder. For deepnesse of cry.

If you would haue your Kennell for the trayning of your horse onely, labouring thereby to bring him to the full perfection of speed, truith, and toughnes, then you shall compound your Kennell of the lightest, nimblest and swiftest dogs, such as for the most part all your Northern *hounds* are, which running swiftly away with the Chase will draw your horse vp to that extraordinary speed, that he will forget all ease or loitering, and acquainting himselfe daily with the violence of such exercise, being so familiar therewith, that in the end it will be lesse troublesome to him then a slow gallop, & hence it was and is that the North parts are so famous for the truthe and swiftnesse of their horses aboue all other Countries in this Kingdome: for it is most certaine that their horses are not better bred there, then in other places, but their exercise is much stronger, and violent, through the naturall swiftnes of their *Hounds*, insomuch that vnlesse a horse either out of nature or education, be brought For trayning of horses.

brought to a more then ordinary speed, it is impossible that his Master should either see sport, or keep company with his companions.

A good eaueat for gentlemen.

Therfore I would haue al yong Gentlemen, which are adicted to the delight of *hunting* or Running horses, by all meanes to traine them vp after the swiftest *hounds*: for it is the greatest deceite and cosenage a man can beslow vpon himselfe, to do the contrary, as I haue seene many times in mine owne experience, when a Gentleman who hath supposed his *hounds* to be swift, which indeede were but of a middle speed, and hath seene his Horse follow them all day lustily and strongly, in euery Chase able to commaund the formost *hound* at his pleasure; he hath immediately in his owne iudgement concluded his horse swift and matchable with the best, and from that opinion ingaged him against a knowne swift horse, for great summes of money, then when the day of trial hath beene come, the horse which had beene trained after slow dogs, comming to follow those that were indeed swift, haue bin drawne so farre beyond the vsual manner of former exercise, that he hath giuen ouer the Chase before the day hath bin halfe spent.

This eaueat I giue for all mens instructions, because I haue seene the losse which hath growne thereby: And now to returne to my purpose; your Kennel thus composed of the swiftest *hounds*, you shal as nigh as you can sort their mouthes into three equal parts of musicke, that is to say, *Base*, *Countertenor*, and *Meane*; the *Base* are those mouthes which are most deepe and solempe, and are spent out plaine and freely, without redoubling: the *Counterteno*r are those which are most loud and ringing, whose sharpe sounds paste to twitt, that they seeme to doole and make diuision; and the *Meane* are those

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which are ſoft and ſweet mouthes, that though plaine, and a little hollow, yet are ſpent ſmooth and freely, yet ſo diſtinctly that a man may count the notes as they open. Of theſe three ſorts of mouthes if your Kennell be (as neere as you can) equally compound, you ſhal finde it moſt perfect and delectable; for though they haue not the thunder and loudneſſe of the great *dogges*, which may be compared to the high wind inſtruments, yet they will haue the tunable ſweetneſſe of the beſt compounded conſorts, and ſure a man may finde as much Art and delight in a Lute, as in an Organ. But here me thinkes a too tender louer of a horſe ſtands at my elbow, and puls me by the eare with this Obiection, that to traine Horſes after *Dogges* of this exceeding ſwiftneſſe, wil be a labour of that violence which a yong Horſe wil hardly endure: For firſt it wil drawe him ſo ſuddainly from his winde, that it wil breed ſtopping in his body, and choaking vp the paſſages of his breath, hazard the breaking of his Lungs, or the rimme of his belly, as hath bin many times ſeene in Horſes of great mettal: Next the horſe being yong, and vnacquainted with exerciſe, it wil breed in him a wearineſſe and loathing of his labour, and nothing is wel done, that is not done with delight: Laſtly, the horſe being foule of body, and vnpurged, it may melt his greaſe too ſoone, ſtrayne his ſinewes and tender griſtes too much, and breede many diſeaſes, foule, and incurable, of which onely too violent Labour is the ground-worke.

Obiections a-gainſt ſwift hounds.

To this obiection I thus anſwere, that albeit the labor be for the time moſt violent, yet it is not of ſo long continuance as that which is more ſlow, and to run twelue ſcore ſwiftly is not ſo paineful, as to walke twenty miles: for you muſt vnderſtand that theſe ſwift *hounds* out of

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their mettal and ſwiftneſſe do ſoone ouerſhut and runne beyond the ſent, and then retiring backe vpon it agayne, giue the horſe time to eaſe himſelf, & catch new breath, whereas the ſlower *dogges* carrying the ſent euer before them, keep your horſe to a continual Labour, which is more painefull, and makes him a tough enduring Lackey, but not a moſt ſwift running Gentleman, beſides the many faults, caſtings about of the ſwift *dogges*, adde ſuch a comfort vnto the horſe, who perceiueth the ſtrength of his Labour to haue no eaſe til he come vp to thoſe Faults, that he wil out of the willingneſſe of his owne nature, double his courage to purſue them moſt ſwiftly, ſeeing his eaſe is euer the greater, by how much hee keepeth euer neerer to the *hounds*; for the danger of burſting, melting his greaſe, and other infirmities, the diſcretion of the *Rider*, and skil of the *Keeper*, muſt preuent: of whoſe Offices I haue written largely in former Chapters, in the Booke called *Cheape and Good*: for be aſſured, thoſe dangers may happen as wel after the ſloweſt *dogges*, as the ſwifteſt.

Correction of ſwift hounds hafts.

But to my purpoſe, ſince *hounds* are the ſubiect of my diſcourſe: You ſhal vnderſtand that theſe ſwift *hounds* are, as is before ſaid, out of their haſt, nimblenes, and mettal, more ſubiect to make defaults then other *hounds*, yet ful as curious and good of ſent as any other, as you ſhal perceiue by the quicke knowledge and apprehenſion of their owne errors, caſting about of themſelues, and recouering the ſent, and ſo going away with the ſame, before any *Huntſman* can come in to helpe them: yet I would wiſh euery Gentleman-like *Husband man*, in the compoſition of this *Kennel*, to haue ſome ſtaunch olde *dogges* amongſt them, which running more ſoberly, yet cloſe with them, may ſit vpon the ſent, when they ouer-

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ſhut it, and ſo cal them backe, and giue them their loſſe without more trouble. Alſo I would haue both in this Kennel, & euery other, a couple at leaſt of good finders, being *dogges ſtaunch* of mouth, and not able to open except they lye vpon a certaine trayle: for theſe wil bee great furtherers of your ſport, and make your younger *dogges* a great deale more mute and paineful.

You ſhal alſo in this and al other *kennels* haue at leaſt a couple of good high way *dogs*, that is to ſay, *Hounds* of ſuch cunning and perfect ſcent, that they wil hunt as wel vppon a drye, hard, high-way, (where you cannot pricke foorth the paſſage of your Chaſe) as vppon the freſheſt moulde, or will hunt as truely through flockes of ſheep, or heards of beaſts, as vpon the grounds where few or no beaſts come; theſe are called *Hounds* for the high-way, or guids of the *Kennel*, and are exceeding neceſſary, and fit for all mens pleaſure: for they take from the *Huntſmans*, both ſenſe of paine and anger. Of the high-way hounds.

Laſtly, if you would compoſe a *kennell* onely for the exerciſe of your owne body, or maintenance of health, you ſhall firſt draw into your Conſideration your owne ability, as whether you wil make your exerciſe on foote, or horſe backe. If your delight and ability draw you to hunt on foote, then I would wiſh you to compoſe your *kennel* of the biggeſt and ſloweſt *dogges* you can get reſpecting only cunning *hunting*, and depth of mouth, and this *kennell* you ſhal make ſo *ſtaunch*, and obedient to your commaund, that when they are vpon the hotteſt ſent, or in the earneſtneſe of the chaſe, to ſtep before them and caſt your hunting pole but before their eyes, they ſhall ſuddainly ſtop, and hunt after you in full crye, with no more ſpeede then it ſhall pleaſe you to leade them, and then when you pleaſe, to let them goe before you againe, The Kennell for exerciſe of body.

againe, to paſſe away with the ſcent roundly and without ſtay.

This manner of *Hunting* will carry with it a two-fold delight, the one of inioying the muſicke of their voices, the other, the cunning of their noſes: each ſtriuing to go before, yet none preſuming without leaue to go before: by this rule you ſhal bring the hotteſt ſcent, and the coldeſt ſcent to one manner of ſwiftneſſe, and ſo neither offend your body with too much, nor too little exerciſe. But if you wil take your exerciſe on horſebacke, becauſe infirmity will not let you runne afoote, then you ſhall compoſe your *Kennell* of the floweſt of middle ſized *Hounds*, who ſhal haue both good mouthes, and loude noſes of moſt ready ſent, and perfect hunting: and if you bring theſe hounds alſo to the former obedience of ſtopping, and hunting after you, it will be exceeding good and delightfull, both to your eyes, and eares, and ſo bring your *Hounds* to temperance & cooleneſſe in *hunting*, that taking the frenſie and greedineſſe of haſt from their minds, they will make your ſport much longer, and leſſe weary then elſe it would be.

But ſome will anſwere me, that albeit they haue infirmities, which detaynes them from running a foot, or labouring like lackies or drudges, yet they can endure ordinary and orderly walking, ſuch as ſhall be fit for any moderate exerciſe; and therefore they would hunt on foot: yet the great *Hound* they like not for two cauſes, firſt his chargeable and troubleſome keeping, and next his noiſomneſſe and peſtering company in a houſe that is but ſtreight, and of no more then neceſſary vſe: To theſe I anſwere, that it is good for them to keepe the little ſmal Mitten-*Beagle*, which may be companions for a Ladies Kirtle, and in the field wil hunt as cunningly as a-

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ny Hound whatſoeuer, only their muſicke is very ſmall, like reeds, and their pace like their body, onely for exerciſe, and not for ſlaughter.

Hauing thus compoſed your *Kennel* of *Hounds* according to the humor of your own fancy and delight, it ſhal be meet then that you frame a *Kennel* or houſe to keepe them in, wherein they may lye dry, and haue their foode and other neceſſaries about them, without troubling your dwelling houſe, or giuing offence by their greedineſſe or rauening. Of the hounds Kennell.

This *Kennel* for *Hounds* would be placed a pretty diſtance from your dwelling houſe, neare ſome riuer, pond ſpring, or other freſh water: it would alſo ſtand againſt the ſide of ſome banke or hill, which looking directly againſt the Eaſt, the morning Sunne might riſe vppon the ſame, and not looſe the ſight of it til at leaſt two or three houres after noone, which will bee a great refreſhing and comfort vnto the Hounds, which loue naturally to ſtretch, trim, and picke themſelues in the Sunne: againſt the ſide of this hill, would be cut or digged diuers large and broad ſeats one aboue an other, containing at leaſt fiue foot in breadth, and two foote and a halfe in height, which ſeates would be eyther boorded, or watled with ſtakes and ſmall wands on the ſides to hold vp the earth from falling, and alſo cloſe boorded aloft, whereon you ſhal lay freſh and ſweet ſtraw for your dogs to lie vpon, the number of theſe ſeates would bee according to the number of your Hounds, and the quallity of the earth in largeneſſe: ouer theſe ſeates would be made a cloſe and well tyled Shed, open no way but vppon the Eaſt, and in ſuch manner that it may defend either al or moſt part of the ſeats from raine, wind, or any tempeſt: from the loweſt part of theſe ſeats forward, you ſhal make a large greene The ſituation of the kennell.

greene court, being either walled, pald, or otherwiſe very ſtrongly fenced about, in which your Hounds may play, ſport, ſcummer, and doe other offices of nature fit for their health: alſo in this court, in the moſt conuenient corner of the ſame, you ſhall build a little houſe or Lodge, with a ſpacious and large Chimney in the ſame, wherein in the Winter time you ſhall allow fire, before which (your Dogges returnd from hunting) may ſtretch, picke, dry and trim themſelues, which is an exceeding comfort vnto them, and wil make them more ſtrong and able to endure their labour, and alſo keepe them wonderfully wel, both from the mangy, and other filthy diſeaſes which proceed from colds taken after violent heating. In this Chimney your *Huntſman* ſhall haue a large Cauldron, and other neceſſaries, as Ladels, Skummers, and ſuch like; for preparing and making ready of all ſuch warme meate as you ſhall allow to them, which if it be ſweet is called, Mang, if otherwiſe Carrion, or garbage: aboue this lower roome ſhall be your *Huntſmans* lodging, wherein he ſhall alſo keep his coopples, liams, collars, traſhes, boxes, and pots, with ſalues and ointments, for the cure of ſuch infirmities as ſhall happen amongſt them, and all other neceſſaries any way belonging vnto his Office. In an other part of the court, and neereſt vnto the houſe, you ſhall place troughs and tubs, ſome for their meate, and ſome for ſweet Water; all which muſt be kept very neate and cleane; and Water muſt by no meanes at any time be wanting, yet oft renued; and the veſſels ſcoured for ſweetneſſe ſake: for the *Huntſman* ought to hold it for a Rule, that nothing bringeth more health then cleanneſſe: Into this *kennell* you ſhall by no meanes bring at any time Carrion, becauſe it will make the place vnſauoury, and vnfit for any

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man of worth to looke into, and ſure it ought to be a place fit for euery worthy eie.

Now your Kennell being thus orderly, and well Prepared, it is meet that I ſhew what meate is meeteſt for *Hounds*; how it ſhall be prepared, and how they ſhall be fed: firſt, then intending that I only ſpeake of *hunting-hounds*, that is to ſay *hounds* which are in continuall vſe and action, you ſhall vnderſtand that in their dates of reſt, the ſtrongeſt and luſtieſt meate you can giue them both for rayſing them vp when they are low hunted, or for keeping them in ſtrength when they haue luſt within them: is either horſe-fleſh newly ſlaine, and warme at the feeding, the intralls and garbage of Beaſts (lungs onely excepted) or the heads, plucks, and bowels of ſheepe, or generally any carrion which is not old, nor cold after the death. To feed them for perfectnes of *Hunting*, and to keepe their ſents fine, pure, and cleane, or to purge the ſtench of the carrion out of their noſes, that thereby they may vndergoe their worke with more cunning, the beſt food is to giue them Mang, made either of ground Oates, Barley Meale Branne, or milduſt well ſcalded and boyled together, or any of theſe two mixt together and ſcalded with beefe-broath, or any other broath, in which fleſh hath beene ſodden, ſo as it be not to extreame ſalt. Of feeding of hounds.

Now for the vſe and manner of feeding with theſe meats (as I ſaid before) horſe-fleſh, garbage, and other carrion, is onely to breed ſtrength, and luſt in a *hound*, and is to be giuen onely when a *Hound* reſteth; becauſe the ſtrength and ſmell of the ſame will ſo cloy and ſtop the *hounds* noſtrels that he can hardly diſtinguiſh or vndertake any finer ſent, and ſo breed much hinderance to his *hunting*: Therefore you ought euer to feed your

Hounds at leaſt the day before you hunt, if not more, with ſweet meate.

Now for the manner of feeding with horſe-fleſh, or any other carrion, you ſhal bee ſure to haue it a good diſtance from your Kennel, and ſo as it may be no annoyance either to your owne neighbours or trauailers in the high Way; then firſt before your *Hounds* touch it, with your knife take off the skin, then open the body, take out the bowels and rip them, then if the body be more then either your *hounds* can, or muſt eate, take off a Legge, or a ſhoulder, or ſuch part as you thinke fitteſt to preſerue, and lay it by, then let your *Hounds* feed on the reſt, til their bodies be wel filled: which done, draw your *hounds* home, and vpon ſome ſtang for the purpoſe, carry with you that which you ſaued; which as ſoone as you haue ſhut vp your *hounds*, you ſhal beare to the Riuer or freſh Water, and lay it in the ſame vntil you haue occaſion to vſe it: for it wi keep it ſweet a weeke or more at leaſt, if need require.

Now for feeding with Mang, or ſweet meat, it would euer be done the day before you hunt, and as it is to be prepared in the Kennel, ſo you ſhal let them eate it in troughs, within the Kennel, for that wil make them take delight in the place, and this Mangg muſt euer bee giuen warme, and made ſomwhat thicke, and if you white it ouer with Milke, or butter-milke, and if you caſt into it chippings, cruſts of bread, bones, broken meat, or ſcrapings of trenchers, it wil be better, and they wil eate it with more greedineſſe.

Meate for ſicke and weake hounds.

If you haue *Hounds* that are poore, weake, or ſickly, which you would ſuddainly recouer and bring vntohunting: Then if you take ſheepes heads woole and all, and hacke, hew, and bruiſe them in many peeces; then boile them

them with oatemeale, and penny-royal, and make ſtrong portage of the ſame, and giue altogether warme to your ſicke *hounds*, and it wil ſuddainly recouer them, if once in a Weeke alſo, you giue them a full meale of warme horſe fleſh, it is very ſoueraigne.

Now for the beſt times of feeding, it is held amongſt all our beſt experienc't *Huntſmen*, to be in the daies of reſt earely in the morning before Sunne riſe, and in the euening at Sunne ſet: But in the dayes of *Hunting*, you ſhal let them goe faſting out of the *Kennel*, and feede them as ſoone as you come home to the *Kennel*, or before in your way homeward, if you haue any Horſe-fleſh, or other Carrion readily prouided: otherwiſe with ſuch meat as you haue, ſo it wil fill their bellies, for a *hound* by no meanes would be pinched of his belly after his labour, and therefore be ſure if your meat be courſe to fill his guts wel, if it be ſweet, ſtrong, and comfortable, then leſſe wil ſerue him. Beſt houres of feeding.

And here I thinke it meet to ſpeake of a conuenient proportion of Food, for the maintenance of a *Kennel* of good *Hounds*: Wherein you ſhal vnderſtand that three Buſhels of Oates, or Barley meale, with halfe ſo much branne or Mil-duſt, is a fit weekely proportion to keepe nine or ten couple of *hounds*; with a little help of horſe-fleſh, if the *Huntſman* be any good husband, and paineful as he ought to be in finding out Horſes, ſcraps, cruſts and bones, which almoſt abound in euery mans houſe of any worth or reckoning: and by imploying that which is ſaued in the daies of labour to increaſe the proportion when need ſhal require: Many much large quantities I haue knowne, and doe know allowed at this day in diuers places: but I haue held it abuſe to the Maiſter, and rather a couetouſneſſe or negligence in the *Huntſman*, A proportion of meate.

by whose vnskilful greedinesse, I haue seene many tyered out of their pleasures: Therefore bee assured this quantity already named wil fully suffice; nay, euen to please a most wanton curiosity, and surely much lesse if a paineful *Hunts-man* haue the gouernment: for I shal neuer see fairer, or better kept *hounds*, then I haue seene maintained with halfe this proportion; but as I would not be too lauish in my directions, so I would much lesse be too strait handed; hoping that euery man of honesty and trust will order his affaires with discretion.

Ordering of hounds after Hunting.

Now for the ordering of your *hounds* after they haue done hunting, you shal if you feede them abroad, or otherwise as soone as you bring them into the *Kennell*, wash all their feet eyther with a little warme butter and beere, Beefe broth, or water wherein *Mallowes* and *nettles* haue beene boiled soft and tender, you shal picke euery cley, and search the foot for thornes, stubs, or any other prickings; you shal looke that the straw whereon they lie, be sweet and fresh; and if it be in the strength of winter, after they are fed, you shal suffer them for an houre or two to beake and stretch themselues before the fire, ere they goe to lye downe for all night, and by no meanes trouble them as long as they licke, picke, or trim themselues; but that once finished, you shal force them from the fire, and make them find out their Lodgings.

Chap. 2.

The curing of all manner of infirmities in Hounds.

NExt vnto these precepts, it is meete you be skilful in curing of al the diseases in *hounds*, of which as there be many, so heere you shal perfect many rules for the same, both perfect, and excellently approoued by late experience.

experience. And first of al in as much as it is an infirmity of all other most generall, natural, & as it were not to be deuided from *dogs:* I wil beginne with the killing of fleas and lice, & such like vermine in *Hounds*, which proceeds from filthy keeping, rotten and moist lodging, and want of shifting of straw when it growe short by much lying on: if then your *Hound* be troubled with fleas or lice, you shall take Rue or Hearbe of grace foure or fiue hand full, and boyle it in a gallon of running water till a pottle be full consumed, then straine it through a course cloth, and put to it two ounces of strong Staueſaker beaten to powder, and being warme, bath your *Hound* therwith, and it will destroy them. Of killing fleas and lice.

If your *Hound* be troubled with wormes, which is very generall amongst them, especially the yong *Hounds*, then you shall take a pint of new milke & mixe it with a good quantity of Brimstone, and so giue it luke-warme vnto the *Hound*, and it will not onely scower away all manner of wormes, but all other filthinesse bred in the body of a *Hound*, either by labour or surfet. To kill worms.

If your *Dogge* haue beene bitten by either Snake, Adder, or any other venemous thing, take the hearbe *Calamint* and beate it in a morter, with Turpentine and yel low waxe till it come to a salue, and then apply it to the sore and it will heale it: Also if you boile the hearbe in milke, and giue the *Dogge* it to drinke, it will expell all inward poyson. Biting with venemous beasts.

If your *Hound* haue beene bitten with another madde *Dogge*, which is a disease exceeding dangerous and mortall, you shall presently wash the place so bitten with Sea water, or a very strong brine, and it will saue and cure him, or els take the hearbe called *Yarrow* and beate a handfull thereof in a morter, with a handfull of white Biting with a mad dog.

till it come to a salue, & then lay it to the sore, and it will heale it, and if you poure into his stomacke as much *Methridate* as a hasell nut, dissolued in sweet wine, and it will wonderfully scoure and preserue him from the infection of the inward poison.

Of a madde dog and the signes.

The infirmity of madnes it selfe in *Dogs*, is common and oft to be seene, and though it be altogether incurable, yet if a man be experienced in the first signes or characters of madnesse, he may preuent diuers mischiefes and most mortall euils, which insue for want of such knowledge, and albe he loose one *Dogge*, yet he may saue all the rest; the first signes therefore to know when a *Dogge* is entring into this disease, is a mellancholy seperating himselfe from other *Dogges*, and walking vp and downe alone, oft casting vp his head into the wind, and looking vpward, his taile at the setting on rising vpward, and the rest hanging downe, his mouth will foame and be ful of slauer or white froth, as he runneth vp and downe he wil hastily snatch at euery thing that he meeteth with, yet but onely giue one snatch and away, his eies will be red and more fiery then other *Dogges*, and his breath will be strong and of a filthy sauour, any of these signes when you shall perceiue, you shall presently seperate him from other *Dogges* and kill him, for vnto the disease is no cure.

Of gauling.

If your *Hound* be gauld, or his skinne torne in any part, you shall onely take *May* butter, yellow waxe, and a little vnsleakt lime, beaten together like a salue, and therewith anncint the sore place, and it is a present cure.

Of a tetter.

If your *Hound* (as they are much incident thereunto) haue vpon him any tetter or dry scab, you shall take of blacke inke, the iuice of mints, and vinegar of each a like quantity, and mixe them together with the powder of brimstone

brimſtone till it be thicke like a ſalue, and then annoint the tetter therewith till it bleed, and it will ſoone kill & cure it.

If your Hound be troubled with the itch, you ſhall take nerue-oyle and beat it with quickſiluer till the quickſiluer be killed, and the ſalue turned to a pale yellow colour: then with the ſame annoint the *Dog* before a good fire, and chafe it well in againſt the haire, and it will cure him. For the itch.

But if your *Hound* be troubled with the ſcabb or mangy, then you ſhall take a penny worth or two of the beſt gunpowder you can buy, and mixing it with very ſtrong wine vinegar, make it thick like puddle: then with the ſame annoint all the places where he ſcratcheth till they bleed, and it will kill the mangie; there be others which vſe to caſt their *dogges* into the Lime-pits of Tanners or Glouers, and force them to ſwim vp & downe the ſame and it will kill the mangie, yet there muſt be a great care taken in putting the *dogges* in, leaſt doing it raſhly, the Lime water get into their eies, which is very dangerous and will hazard their burning out. Of the mangy or ſcab.

If your *hound* ſhall receiue any wound, whether it be with ſharpe or blunt weapon, or any accident whatſoeuer, although his owne tongue bee a ſoueraine ſalue, yet if it be in any part, where either he can or cannot licke it; the beſt cure is to waſh it with warme butter and vinegar mixt together, and then anoint it with a little Venice turpentine; but if it be a hollow wound, and muſt of force be tainted, then you ſhall either tent it with ſweet butter & oatmeale, wrought together to a ſalue, or with yellow waxe and Terabin; there be ſome that will vſe for a taint a tallow candles end, and it is very good if the tallow be ſweete; but if it bee putrified, Of wounds.

then it will poyſon and corrupt the wounde.

Of a canker in the eare.

If your *hound* be troubled with a canker in his eares, which is a griefe much incident vnto them; you ſhal firſt taint the hole if you find any, with dry corke, and after waſh the ſore with vinegar and Allome, mixt together till the fleſh looke raw, and after drie it with burnt Allome onely.

Of furbaiting.

If your *Hound* be furbaited, you ſhall waſh his feet with butter and beare boiled together, and then bind to the ſoles of his feet young red nettles chopt verie ſmall, or beaten in a morter till they come to a ſalue.

Of Bruiſes.

For any manner of bruiſe which ſhal happen to your Hound, either by ruſh, ſpurne ſtroke or otherwiſe, if it appeare and ſwell outwardly, you ſhall bath the place with cheeke weed, and groundſal boiled in ſtrong Ale dregs till they be ſoft, and will allay the ſwelling; but if the bruiſe be inward, then you ſhall with a horne giue the *dogge* a pint of new milke and a quarter of an ounce of *Sperma Cæti* well mixt together, or for want of *Sperma Cæti*, double ſo much ſtone pitch beaten to fine powder.

For the ſtone.

If your *Hound* be troubled with the ſtone or other filthy matter, which maketh him that he cannot piſſe, you ſhall take the ſeeds of the herbe *Granum ſolis*, or *Gromel*, and bruſing them, giue them to the *Hound* in halfe a pint of white wine.

For coſtiuenes.

If your *Hound* as it is very naturall to *dogges* be ſo coſtiue that he can by no meanes skummer, you ſhall firſt take a peece of a tallow candle, about three fingers in length and thruſt it a good way into the tuell of the *Hound*, and then hold downe his taile hard a quarter of an houre or more, and then giue it liberty, and when he hath emptied his belly, you ſhall giue him to drinke fiue

or

or ſixe ſpoonefull of Sallet oile, and will cleanſe him ſufficiently.

If your *Hound* be troubled with any diſeaſe in his eares whether it be a continuall running, or any other impoſtumation, you ſhall take verdiuyce and cheruile water, and mix them together, and each morning and euening, drop a ſpooneful or two thereof into the *dogges* eares, and you ſhall finde it a preſent remedie. For any diſeaſe in the eares.

If your *dogge* at any time be troubled with ſore eies, of what nature or qualitie ſoeuer the griefe be, you ſhall take a leafe or two of ground iuie, and chewing it well in your mouth, and ſucking out the iuyce ſpit the ſame into the *dogges* eies morning and euening, and it will cure them; This ground iuie is a little round rough iagged leafe, and growes in the bottome of hedges. For ſore eies.

If your Hound ſhall happen to breake a legge or any other bone, you ſhall firſt with your hand place it in his true place, and ſee that it ſtand ſtraight and euen, then bath it in the warme oile of ſwallows, or the oile of mandrage apples and wrappe it about two or three times in a ſeare cloth made of yellow wax and Deare ſuet, which done ſplent it with flat ſplents of wood, and ſo role it with a ſtrong roler, and let it ſo reſt nine daies at leaſt, before you vnſplent it, but remoue not the ſeare cloth for fifteene dayes, and you ſhall ſee the bone will knit ſtrongly and firmely. For broken bones.

Chap. 3.

Of the breeding of all manner of Hounds.

HAuing thus paſſed ouer the election of *hounds*, compoſition of *Kennels*, dieting & curing of all ſorts of diſeaſes, I hold it meeteſt now to folow with ſome ſhort precepts the breeding of *Hounds*, becauſe it is exceeding

ding

ding hard, for any man to haue a *kennel* of *hounds* from gift or purchace without much imperfection: for though one Friend giue you a good *hound*, another sell you a good *hound*, yet how their goodnesses wil agree when they run together, is very disputable; and truely vnlesse your *hounds* haue one speed, one tunablenes of voyce, and one manner of *hunting*, your pastime wil be much disorderly, which there is no way to get so easily and truly, as by the breeding of your *hounds*, for one and the same birth produceth one and the same qualities, therefore hauing a *hound* and a brach of that size, voice, speed, scent, proportion, and general goodnesse which agreeth best with your owne nature and condition, you shal put them together to ingender and breed, eyther in *January*, *February*, or *March*, according as they shal grow proud, for those are the three most principall monthes in the yeare, for *hounds*, *bitches*, or *brachs*, to be limed in, not but that they may conceiue and bring foorth as good *Whelpes* in other moneths; but becausse there wil be much losse of time in the entring of them, for if a *brach* be limed in *January*, she wil Whelpe her Litter in *March*, and so they wil be ready to enter in the first beginning of hunting time: if she be Limed in *February* shee wil whelpe in *Aprill*, and if shee be Limed in *March*, shee wil whelpe in *May* following, and in all these three Moneths there is not a dayes losse, for the entring of the whelpes, which is an especiall care to be obserued of Huntsmen.

Hounds must sute one another.

The monethes to breede in.

Also if you shal let your *hounds* ingender in the three moneths aforesayd, you shall not forget to obserue as neere as you can, that when you put the dog and bitch first together, the Moone be eyther in the signe *Aquarius* or *Gemini*; for it is held amongst the best Huntsmen of

Vnder which signes to breed

of this Land, that the whelpes which are ingendred vnder thoſe two ſignes, wil neuer runne mad, and for the moſt part, the Litter wil haue at leaſt double ſo many *dogge whelpes*, as *bitch whelpes*. When your *bratch* is neere whelping, or hath whelped; you ſhal ſeperate her from other *hounds*, and haue a priuate *kennel* for her, where ſhee may be alone without company of other *hounds*, and you ſhal duly euery night ſee her *kenneld* in the ſame, that ſhe may take acquaintance and delight therin, and when you feed her particularly, you ſhal feed her in that *kennel*, that taking a loue thereto ſhe may not ſeeke out other vnfit and vnwholſome places to whelpe in: for where a *Bratch* firſt whelpeth her Litter, if they be remoued, ſhe wil not leaue carrying her whelps vp & down, til ſhe haue found the ſame place again, or ſome other perhaps more vnfit then the former, and ſuch carriage of whelps by the Dam is very ill and dangerous: this *kennel* where your whelps ſhal remaine, ſhal not be kept cloſe, but open, that the *bratch* may haue liberty to goe vp and downe after twenty foure houres ſpace, which time ſhe ſhal be kept very wel, cloſe, and warme, that ſhe may performe the natural office of a Damme to her whelps.

Ordering of Bratches after Whelping.

You ſhall not ſuffer your Whelpes to ſucke aboue two moneths at the moſt, but then you ſhal Weane them, and if the houſe you keep be of great receite, and many Seruants, you ſhal let your Cooke bring vp your whelps, and your Dairy-maide your ſecond beſt, and the reſt you ſhall put foorth amongſt your Friends, or Tenaunts, according vnto the loue you poſſeſſe in the Country.

When to weane Whelpes.

Now when your whelps are brought vp, you ſhal not enter them into *hunting* before they be at leſt a yeare & halfe

When to enter Whelpes.

a halfe olde, as thus, if your Whelps were whelpt in *March*, then you ſhall not enter them vntill *September*, come twelue moneths after: and if they were whelpt in *April*, then you ſhall enter them in *October* come twelue moneths after: And ſo foorth, for the reſt of the moneths.

How to enter Whelpes.

Now for the manner of your entring of whelps, you ſhal draw them abroad in the pleſanteſt of the day, with the moſt ſtaunch and beſt hunting *hounds* you haue, leauing at home all babling and flying Curres, and if you can, you ſhal haue your *hare* ready ſet before you come, (for the *hare* is the principal chaſe you can enter whelps vpon) and then putting her from her forme, and viewing perfectly which way ſhe taketh, after the ſent is a little coo'led, lay on your *hounds*, and giue them all the aduantages you can for the *hunting* of her, as by *winde*, *view*, *hallow*, or pricking her paſſage, and if they ſhall chance to kill her, you ſhal immediately take her from the *hounds*, and not ſuffer them to breake her, for it is an euill cuſtome: but your ſelfe ſtripping away the skinne, ſhal cut her all to peeces, and giue euery part of her to your yo'ng whelpes, which will breede in them great courage and delight in *hunting*.

Obſeruations in the entring of whelpes.

You ſhal obſerue in the entring of your yong whelps, that they hunt faire and euen, without aduantage, or ſeeking any way to gaine their owne eaſe, as by lying off from the ſent, thwarting, or croſſing when they are behind to get euen with the formoſt *hounds*: any of which when you ſhal perceiue, you ſhal immediatly beat them in with your hunting-poale, and compell them to take the ſent before them: alſo if any of them be giddy headed, and out of mettle will run before the other *hounds* cleane from the ſent, in this caſe alſo you ſhal beat them ſoundly

ſoundly backe, and bring him back to the ſent, and force him to take it with the reſt of the *Kennell.* Alſo if any young *hound* wil not ſtrike vpon a default, but run babling away without the ſent, drawing away the reſt of the *Kennel* to follow him; in this caſe alſo you ſhal ſcourge him backe, and compel him to ſtand and labour vppon the default, til ſome of the elder *hounds* vnder take it, then you ſhal cheriſh all, both with *horne* and voyce into the Chaſe.

Laſtly, if you finde that any of your young Whelpes truſt more to his owne ſent, then to the reſt of his fellowes, and ſo by that meanes hunteth at leaſt twenty ſcore ſometimes behind the reſt, making his defaults by his owne noſe, and not their owne leading, yet hunteth very iuſt and true: In this caſe you ſhal by no meanes ouergoe, or ouer ride the Whelpe: but giue him all comfort and encouragement you can, and let him take his owne time and leiſure, for vſe and experience wil quickly make him skilful, and the skill will ſoone carry him vp, amongſt his fellowes, where he wil ſoone become a principal Leader: and thus much for *Hounds*, and the compoſition of *Kennels.*

Chap. 4.

Of all the ſeuerall Chaſes which Hounds are to hunt.

THere hath already (by many wel experienced men) bin ſo much written of this Subiect, that I know not wel what to write, except I ſhould in ſome ſort repeate an other mans tale: from which I am ſo far different (hauing vowed to my ſelfe, by no meanes to meddle with any thing formerly written) that the ſtricteſt examiner whatſoeuer, ſhal not find me guilty of the leaſt blemiſh therein,

therein, yet since I must necessarily in this case Write something, I wil as briefly as I can set downe some materiall and special notes, and for the maine Substance, if they desire a long continued circumstance (though this is sufficient for any vnderstanding wit) referre them vnto old *Tristram* Booke, translated by Mr. *Turberuile*, and such other Bookes, where they may find compleate satisfaction.

Of the Stagge and his profits.

To speake then first of the *Stagge*, which is the most Princely and royal Chase of all Chases, and for whom indeede, this Art of *Hunting* was first found out, and inuented, he is of all Beasts the goodliest, statelyest, and most manly, and for the vse of Man the fullest both of outward and inward profite, as in his flesh for the nourishment of mans body, and in his other members for helpes in physicke, as the bone in his heart, which is Soueraigne for all inward faint sicknesses, for poyson, the Plague, and hard Trauaile in Women: his blood excellent for all kind of Fluxes, and to make the skin white and smooth: his pizel good for the Cholicke and bloody fluxe: His Horne a most Soueraigne Cordiall against venome: his Suet good for swellings, Gouts, and Humors, and his skinne, which is euer a during and Gentleman-lye cloathing, and of Stagges, the oldest and greatest is the best.

How to know a Old Stagge.

The perfect signes to know an olde *Stagge* by, are these; if when you take his view vppon the ground, you see he hath a large foote, a thicke heele, and a deep printing, an open cleft, and a long space, then be assured he is olde, also if his legge be long, and his bone thicke, it shewes age, besides your old *Stag* doeth not ouer-reach when your yonger Deere doth, also you shal know his age by his ordure, as thus, if it be printed (as it will be

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from *July* to *Auguſt*) or writhen round, or flat, or broad, as it wil be in *Iune*, and there with al be groſſe and fatty, then he is an old Stag: but if contrarily ſmal and dry, then he is but a yong Deere; againe you ſhal know his age by the tines of the hornes, for if he haue ten, twelue or fourteene tines, hee is a Deere of reaſonable age, but if the beame be thick, and great, then he is an old Deere, ſo if he carry but ſome ſixe or eight tines, and a ſmal beame, then he is a yong Deere, and not aboue three or foure yeares old for the red Deere is ſaid the firſt year to haue no head, the ſecond but only daggers, and the third tines.

Stags yearely caſt their heads in *March, April, May*, or *Iune*, and in no other months, according to the goodneſſe of the ſoile wherein they feede, for the richeſt ground beareth euer the earlieſt Deere, and a Deere is neuer ſayd to be in ſeaſon, nor may he by good rule be hunted til he haue caſt his head. The caſt of Heads.

The principalleſt quality in a *Huntſman* is to know how and where to find a Deere, for if he be ignorant in their haunts, he may wander long, & loſe much labour. Therefore he ſhal know that a red Deere naturally hunteth in *Nouember* amongſt Furres, Winnes, or thicke ſhrubs. In *December* amongſt thick and ſtrong woods. In *Ianuary*, in Corne-fields of Wheat and Rie: In *February* and *March* amongſt young and thick buſhes: In *April* and *May* in Coppiſes and Springs: In *Iune* and *July* in outwoods, and purlews which are neereſt vnto greene Corne: and in *September* and *October*, after the firſt ſhowers of raine, they go to Rut. How to finde a Deere.

Now when the *Huntſman* wil at any time ſearch any of theſe places to finde his game, he muſt be careful by no meanes to go downe, but vp the winde, for a Deere is of moſt dainty ſent, and vpon the leaſt fault wil flye and leaue

leaue his feed: therfore he muſt come charely and cloſely, with a quicke eare, and a ready eye.

Now for the beſt time to finde out your Game, is early, before Sunne riſe, at which time the Deere goeth to his food: from whence you ſhal warch vnto his Leire, and hauing lodged him, you may returne home, and prepare al things for the dayes hunting: for be aſſured, except violently compeld, he wil not ſtirre vntill Euening.

The Hunting of the Stagge.

Now for the manner of his hunting: you ſhal firſt caſt off your finders, neere his place of lodging, & after they haue hunted him about a ring or two, you ſhal caſt in the reſt of your *hounds*, and being in ful crye and maine chaſe, you ſhal giue him comfort both with Horne and Voyce, then as ſoone as you can poſſibly, you ſhal get ſight of the Deare, and take what eſpecial notes or markes you can from him; ſo that as much as is poſſible you may know him from any other Deare, then at euery default, as ſoone as the *hounds* are in cry againe, you ſhal make into the hunted Deare and viewe him, and if you finde it to be a freſh Deare, you ſhal rate the Dogs, and bring them backe to the default, and there make them caſt about againe, vntil they haue vndertaken the firſt hunted Deare, then giue them comfort by hollowing and Gibelts, and ſo continue the chaſe til you haue either ſet vp the Deare or ſlaine him, euer and anon having a Watchful eye vnto change, for it is the nature of a Deare, when he is once imboſt, or weary, to ſeek where he may find another Deare, and to beate him vp and lay himſelfe downe in his place.

To know when a Stagge is weary, you ſhal ſee him imboſt, that is, foaming and flauering about the mouth with a thicke white froth, his haire wil looke blacke, ſhi-

To know when a Stag is weary

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ning and foule with fwiftnes, and he wil rappifh off; that is, he wil euer and anon be lying down and lurking in darke holes and corners, and for his laſt Refuge he wil betake himſelfe to the ſoile: which is, he wil leape (if he can) into Riuers, ponds, or other water, out of which you ſhal force him either by art or ſtrength: And thus much for the Chaſe or hunting of the Stagge.

Now for the Hunting of the Bucke: for as much as they are moſt vſually kept in Parkes, and that euery Keeper, which is worthy to be a Keeper, may ſooner from his owne experience then from any Reading, get the experience of the ground he tendeth, and ſith he is bound both by the Lawes of Hunt-men and good manners to giue euery man contentment that is priuiledged to hunt in his ground: And ſith whoſoeuer can hunt a Stagge wel, cannot hunt a Bucke ill, the red Deere being euer far more curious to hunt, then the Fallow: I wil not ſpend any more time to write of it, but refer you to thoſe rules which are already Rehearſed. Of the Bucke.

Touching the hunting of the *Hare*, which is euery honeſt man, and good mans chaſe, and which indeed is the freeſt, readieſt, and moſt enduring paſtime, and likewiſe in its owne kind, full of good profit for mans Preſeruation: For though the beaſt be but little, yet are the members worth enjoyment, as the fleſh, which is good for all manner of Huxes: the Braines good to make children breed their teeth with eaſe: the wool excellent to ſtench blood: the Gal ſoueraign for ſore eies, the blood which will kill Rheume, wormes, and the ſtuffling bone, which being worne, taketh away the paine of the Cramp, with many other good things beſides. Of the Hare. Of her profits.

Touching the hunting of the *Hare*, you are firſt to regard the place of hunting, as whether it be in woods, or The Hunting of the Hare.

champaigne; if in woods, you ſhall not caſt off your dogs in the thickeſt of the couert, but rather beat the buſhie cloſe, or ſhrubie ground neare adioyning to the couert: for though in the woods you may ſooner find a *hare*, yet commonlie you ſhall finde ſuch change therewithall, that you ſhall hardly bring any forth to weſt your pleaſure, where on the contrary part, if you finde any in thoſe neighbouring grounds, ſhe will preſently fly foorth into the champaigne: becauſe naturally a *hare* will refuſe the couert till ſhe beginne to be weary, & a *hare* being once heated, is not ſo eaſily loſt vpon a freſh change; as when the ſents are of equall coolenes, if you hunt in the champaigne, you ſhall firſt beat thoſe places which are moſt likely, as where Gorſe or whinnes grow, or in grounds that are full of tuſkes of ruſhes, ſhort lingge, bramble buſhes, or ſuch like: or if the champaigne be more plaine and void of ſuch places, then you ſhall at the beginning of the yeere repaire to the ſhrubs, about Chriſtmas to the fallows, and in *March* to the greene Corne: for thoſe are the moſt vſuall haunts for the beſt *hares*, and in all theſe places you ſhall regard the Forme, or Hares ſeate well, and know whether it be old or new, as if the forme be plaine and ſmooth within, the padde before it flat & woorne, and the pricks ſo new and eaſie to be ſeene that the earth appeare blacke, and as it were preſently broken, then is the forme new, and if the *Hounds* call vpon it then may you hunt from thence, and vpon the trayle recouer that *Hare*: but if the forme looke old and rough within, and the padde it ſelfe be not ſmooth nor anie prickes to be diſcerned therein then it is old, and if the *Hounds* call vpon it you ſhall rate them for the ſent is old and all the labour will be loſt you ſpend vpon it.

Where to find Hares.

The knowledg of the Hares forme.

The next thing you obſerue muſt be the ſhifts and ſleights

sleights of the *hare*, when she is wearily hunted, as her dubblings and windings and at euery default giue the *Hounds* leasure enough and compasse enough in the casting about of your rings for the vnwinding of the same, then you shall obserue her leapes and skippes before she squat, and beat all those places very curiously which are likely to giue her any harbour, & though the losse seem neuer so dangerous, yet not to bee discouraged but to continue your search, because when shee commeth to those hard shifts shee is at the last cast and cannot stand long before the *Hounds*. Many other circumstances there are, but they are so generall knowne to almost euerie man that any waie affecteth this pleasure, that it is needlesse to make further relation thereof, and therfore I hold this sufficient for the hunting of the *hare*.

The hares sleights and shifts.

Now for the hunting of the *Fox* or *Badger*, they are chases of a great deale lesse vse or cunning then any of the former, because they are of much hotter sent, as being intitled stinking sents and not sweet sents, and indeed very fewe *dogges* but will hunt them with all egernesse, therefore I will not stand much vpon them, but aduise you to respect well their haunts & couerts, which commonly is in woods and bushie places: and to take knowledge of their earths, and Kennels, and as neere as you can when you goe about to hunt them, to stoppe vp their Kennels, and keepe them out that sling foorth, they may be the sooner brought to their destruction, the chase is profitable and pleasant for the time, insomuch as there are not so many defaults, but a continuing sport, yet not so much desired as the rest, because there is not so much art and cunning, and thus much for chases, and the generall vse of all kind of hunting.

The hunting of the Fox or Badger.

The end of Hunting.

Of Hawking, &c.

Chap. 5.

Of the Hawking with all sorts of Hawkes, and the whole Arte thereof.

IF your Englisſh Husband-man ſhall for his Recreation, chuſe the pleaſure of Hawking, which is a moſt Princely and ſerious delight; he ſhal vnderſtand that all Hawkes are diuided into two kinds: the long winged Hawke, and the ſhort: the long winged Hawkes which are meete for our Husbandmans Recreation, are the *Faulcon gentle*, and her *Tercell*, the *Gerfaulcon* and her *Genkin*, the *Saker*, the *Lanner*, the *Barbary Faulcon*, the *Merlin*, and the *Hobby*, and the ſhort-winged *Hawkes* are the *Goſhawke*, the *Tercel* of the *Goſhawk*, the *Sparrowhawke*, & the *Muſket*.

Kindes of Hawkes.

The *Faulcon gentle*, which is the principle of *hawks*, may be made either for the field or riuer, & wil fly either at the Partridge or at the Mallard: the *Gerfaulcon* wil fly at the Heron: the *Saker* at the Crane or Bitter, the *Lanner* wil flie at the Partridge, Pheaſant, or Choffe: the *barbary faulcon* at the Partridge onely; the *Merlin* and the *Hobby* at the Partridge, Larke, or any ſmal bird whatſoeuer: the *Goſhawke*, or *Tercel* of *Goſhawk* at the partridge, Pheaſant, or Hare: the *Sparrow-hawke* at the Partridge or Blacke bird, and the *Muſket* at the Buſh only, and all theſe Hawkes are hardy, meeke, and louing to the man.

The flights of Hawkes.

All

All Hawkes generally are manned after one manner, that is to say, by watching and keeping them from sleep, by a continuall carrying of them vpon your fist, and by a most familiar stroaking and playing with them, with the Wing of a dead Foule or such like, and by often gazing and looking of them in the face, with a louing and gentle Countenance, and so making them acquainted with the man. The manning of Hawkes.

After your Hawks are manned, you shal bring them to the Lure by easie degrees, as first making them iumpe vnto the fist, after fall vppon the Lure, then come to the voice, and lastly, to know the voice and Lure so perfectly, that either vpon the sound of the one, or sight of the other, she will presently come in and be most obedient, which may easily be performed, by giuing her reward when she doth your pleasure, and making her fast when she disobeyeth: short wing'd Hawks shal be called to the fist only, and not to the Lure, neyther shal you vse vnto them the loudnesse and variety of voice, which you doe to the long winged Hawks, but only bring them to the fist by chirping your lips together, or else by the whistle: And in this manner of Luring and calling of Hawkes, (for short-winged Hawkes are sayd to be called and not Lured) you shall specially acquaint your Hawke with three things: First bouldnesse and acquaintance with Men, Dogges, and Horses; then that she be eager and sharpe set before the Lure be shewed her, knowing both the morning and euening houres of her luring; and lastly to delight her the more with the Lure, to haue it euer garnished on both sides with warme and bloody meate. Of Luring Hawkes.

When your Hawkes are throughly manned and lured, and are come to height of flesh and good lust, you shall then spie out a faire day when the weather and aire The bathing of Hawkes.

is moſt temperate, and carry your Hawke to ſome faire little, ſhallow ſandy, running Brooke, or rundle where the water is quiet and ſtil, and where your Hawke may ſtand vp to the mid thigh therein, and hauing prickt her downe and made her faſt hand by the verdge thereof, you ſhal take off her hood and goe a little way from her, and ſee where ſhe wil bath therein; but if you finde her feareful of the water, you ſhal with a little ſticke paddle in the water a while before her, and then depart from her againe, and let her then bathe therein as long as ſhee pleaſeth: this done, you ſhal take her vpon your fiſt and giue her a bit or two of meate, then hold her in the ſun, and let her picke, prune, and dry herſelfe againe, if you cannot come to any Riuer, brooke, or rundle conueniently, then you ſhal prouide either a large baſon, or a broad ſhallow tubbe, and in it let your Hawke bathe as oft as occaſion ſhal ſerue, for this bathing giueth a Hawk courage, boldneſſe and a great appetite, and would commonly be vſed the day or morning before any princely flight: If it be in the winter that your Hawke bathe, when no Sunne ſhineth, you may then drie her as wel by the gentle aire of the fire as otherwiſe.

Of enſeaming, giuing caſting and ſcouring.

To enſeame your Hawke, which is to cleanſe her from, greaſe, fat & glut which lieth inwardly in her body, and which you ſhall know by her round thighes, hir fleſh, and full newtings; then when you feed her in the morning giue her a bit or two of hot meare, and the night following little or nothing, then morning and euening after feede her vpon the fleſh of a Rooke waſht in two waters, till you feele the pinions of her wings more tender then they were before, then giue her caſting according to her nature, as was before ſhewed, and once in two or three daies giue her a Hennes necke well ioynted

ted and washt in water, which will by the sharpnes ther-of breake the kells and filmes of fat which are in her body; then euery morning you shall giue her a quicke traine Pidgeon, and keepe her so long vpon her winge that by her owne moderate exercise, she may melt and dissolue the grease that molesteth her, which after it is broken you may take away, by giuing her three or fowre pellets of the roote of Sellandine, as bigge as garden pease, well washt and scowred, and if you keepe those pellets in the sirrup of Roses the scouring is much stronger.

When your hawke is manned, lured, and enseamed, you shall then bring her to her flight, which if it bee at the Pheasant or Partridge in woody and closse grounds, then you shall when you lure the hawke, cast your lure into some lowe tree or bush, that therby you may bring her to take the stand, which when she doth you shal then drawe out your lure, and giuing her notice thereof, make her ceaze thereon, and euer feed her on the ground and vnder a bush, the practise whereof will bring her to delight in the stand, and to marke all the aduantages which shee shall get from thence, then bringing her to either Pheasant, or Partridge, make her fly at a young one first, that being more foolish & easier slaine, she may take delight in her conquest. But if you fly any long-winged hawke in the champaine, then you shall by all meanes possible keepe her from the stand, and onely maintaine her vpon her wing till you spring the Partridge vnderneath her, and then stooping vpon the aduantage, the prey can hardly escape her; yet for the more sure killing of the game and enuring of young hawkes, you shall first spring the Partridge and marke them, then being come to the marke cast off your hawke, and when she is gotten

Of flying at the Pheasant or Partridge.

to the height of her gate lay in your Spannels, and then retriuing the Partridge vnderneath her after the firſt flight it is impoſſible ſhe ſhould eſcape. And in this ſort you may fly all manner of long-winged hawkes, for it is not ſo proper to fly them from the fiſt, although moſt of our late *Hawkmaſters* now adayes vſe it; but for your ſhort-winged hawkes, you ſhall fly them from the fiſt onely: And therefore to make them hardy and valiant, you ſhall firſt enter them at an old field Partridge, laid in a hole, and couered either with a fodde, board, or hat, at which you ſhall faſten a ſmall Creance, and then vncoupling your Spannells, as they are raunging about ſodainely, when your Hawkes head is towards the Partridge, plucke off the fodde or hatte, and let the traine goe, and the Hawke after it, which as ſoone as ſhe hath ſlaine reward her very well, and thus doing twice or thrice, you may after venture to flie her at your pleaſure.

Of flying at fowle.

To make your Hawke fly at fowle, which is called the flight at the riuer, you ſhall firſt whiſtle of an approued well quarried Hawke that is a ſure killer, and let her eiew the fowle ſo long till ſhe bring it to the plundge: then take her downe and reward her, and ſet her by, yet ſo as you may haue her ready to vſe at your pleaſure: then whiſtle of your yong hawke, and when ſhe is at the height of her gate, and that you haue ſhewed her water diuers times to make her the more inward, and by a gibbet cal'd her in, when at any time ſhe hath looked out: Then being iuſt ouer the fowle, make in with all your company on euery ſide the riuer, and ſo lay forth the fowle, which if your Hawke ſtoope, ſtrike and traſſe, you ſhall preſently make into her, and helpe her, and then croſſing the foules wings, or breaking them, let your

Hawke take her pleaſure thereon, but if ſhe doe not ſlay the foule at the firſt ſtooping, then you ſhall giue your Hawke leaſure to recouer her gate againe, and then lay forth the foule as before, not leauing thus to doe till you haue landed it, and that the Hawke hath ſlaine it, & then reward her as before ſaid. But if ſuch a miſchiefe ſhall fall out that the fowle doe ſcape and breake away: then you ſhall be ſure to haue a liue Mallard readie in your bag; which you may caſt forth, and ſo reward your Hawke thereon.

Helpes for faults in long winged hawks, and firſt of the ſtand.

If your long winged hawke flying at the riuer or in champaine fields vſe to take ſtand which is a foule fault, you ſhall firſt by all meanes ſhunne flying neere trees or coutes: but if that doe not ſuffice, then you ſhall haue diuers traines in diuers mens hands: and when the hawke offers to goe to the ſtand, let which is next her caſt out his traine, and if ſhe kill it, reward her: this doing once or twice will reclaime or nothing.

Againſt frowardneſſe.

If your Hawke through pride of greaſe or otherwiſe be froward and coy, you ſhall not when ſhee kils reward her as you were wont, but conuaying ſome other colde meate cunningly vnder her, let her take her pleaſure thereon; and euer with the meate giue her ſome feathers which may ſcower her and make her to caſt; for this will recouer her ſtomacke, and make more carefull and diligent.

To make a hawke inward.

If your Hawke be of a wilde and ſtirring nature, and will not looke inward towards the man with her head, but rake and gaſe after euery checke, neither reſpecting whooping nor gibbeting, in this caſe you muſt followe her and lure her backe, and as ſoone as ſhe turneth in her head, ſhow her the Luer, to which if ſhe ſtoupe, then preſently reward her, and thus doe ſo oft as ſhe raungeth

till

til ſhe be brought vnto that Loue to your voice and affection to the Luer, that ſhe wil forget her other extrauagant thoughts.

To keepe a hawke in high flying.

When your Hawke is brought to flye to an extraordinary high pitch, to mainetayne and keepe her in the ſame manner of flying ſtil, you ſhal not flie her aboue one flight in the day at the moſt, for nothing bringeth her downe more then ouer Wearineſſe: Alſo you ſhal then not keep too extreame a ſtraight hand vppon her, for the too much greedineſſe of the Quarry makes her ſlake her flying. Alſo you ſhal not flye her vpon Rundles, or ſmal brookes, but vppon plaſhes and broad Riuers, you ſhal not ſuffer her to flye too long, but after two or three ſtoopings, and a croſſing, although ſhe miſſe it, take her downe with the Luer or traine, and reward her, for this encouragement wil maintaine her in her goodneſſe.

To bring Hawkes vpward.

If your Hawke be high flying, yet ſloathful to get to her Gatte, or elſe now and then ſtouping before there be cauſe, and ſo looſing her Way, which many times happeneth when either the Hawke is kept too ſharpe, or flowne out of her due time, any of which faults when you perceiue, you ſhal then vpon the doing thereof giue her a dead Quarry, and then hood her vp without Reward, and an houre or two after call her to the Lure, and feed her: and thus do as oft as ſhe offendeth; yet for the more ſure preuention thereof, I would haue euery *Fauconer* to trye the natural diſpoſition of his Hawke, and find whether ſhe flyeth better on a ſtrait hand, or an open, and whether early or late and ſo forth, and according to her owne nature euer to keep her.

Short winged Hawkes as *Goſhawkes*, & *Sparrow-hawkes* wil many times neither kil their Game, nor flye their

Game

Game to marke, but wil giue it ouer after a little flying, and (as *Faulconers* terme it) turne taile vnto it, which when you ſee, you ſhal incourage your Dogges to hunt and caſt before your Hawke a traine Partridge, as it were the Wild one, and make her ceaze it, and feed wel vpon it, to incourage her the better; and thus do twice, or thrice, which if you ſee it preuaile not, then eſteeme her not, but make her away, for ſhe wil hardly euer be Reclaimed.

Faults in ſhort winged hawks, at firſt of turning taile.

Hawkes that haue neuer beene acquainted with prey, wil many times not fly at al; but taking a Tree, wil ſit and looke after the game, which fault to amend, you ſhal euer feed her vppon quicke Birds, and make her foot them, and then going into the field, which is Champain and plaine, after you haue Rid vp and downe a pretty ſpace with the Hawke vnhooded, you ſhal cauſe one of your company to caſt out a field Partridge before your Hawke: Then let her flye at it, and ſo ſoone as ſhe hath footed it, let her feed thereon at her pleaſure, and do thus three or foure times til ſhe be wel in blood, and you ſhal find her valiant quickly.

If a Hawke wil not fly at all.

If your Hawke be ſo fond of the man, that ſhe wil not flye from him, but after a ſtroke or two, returnes to him againe: you muſt then but ſeldom be familiar with her, and let her rather feed her ſelfe then be fed by you, and as oft as ſhe commeth ſo vnproperly vnto you, you ſhal giue her no Reward, but when ſhe forſaketh you and killeth the Game, then you ſhal wel Reward her, and then make her both familiar with Men, Dogges, and Horſes, for to take toy or diſlike to any of them, is a miſchiefe a great deale worſe then the former.

To much fondnes of the man.

To ſpeake of the Mewing of long winged Hawkes, you ſhal vnderſtand that ſhe may be ſet downe, that is,

put

Mewing of long winged Hawkes.

put into the Mewe about the middle of *Aprill*, at which time if you finde they haue any lice you ſhall pepper them, and put them into the Mewe, which if it bee a lowe place vpon the ground free from noiſe, vermine, or any euill aire, then it is called mewing at the ſtone or ſtocke; but if you mewe in any high roome with open windowes towards the *North*, or *North-eaſt*, then it is called mewing at large: If you mewe at the ſtocke, you ſhall haue a broad Table in the midſt of the roome, on which you muſt place ſand, grauell, ſtones, ſods, and tubs for water, and in the midſt of theſe a free-ſtone or block of two foote high, to which you ſhall faſten your hawke with a turuell of iron, ſo that at no time her leaſe may be intangled; this manner of mewing may be in the Faulconers owne bed-chamber, or in any other ſafe roome at his pleaſure, the beſt meate in the mewe is any quicke birds or fowle, dogs fleſh and ſuch like: If you mewe your hawke at large you ſhall put her looſe into the mewe, hauing ſundry pearches therin, ſome hie ſome lowe for her vſe to ſit on; and in this mewe alſo you ſhall haue, ſand, ſtones, grauell, greene ſods and water, all which you ſhall renewe as oft as neede doe require, and in the midſt of them a blocke or two whereon to tie her meate, which meate ſhall be the ſame formerly ſpoke of and giuen at certaine and due times, without faile or alteration.

Mewing at the ſtone.

Mewing at large.

Mewing of ſhort-winged hawkes.

If you intend to mewe a ſhort winged hawke, as the Goſhawke, or ſuch like, you ſhall in *March* after you haue ſcowred her and made her cleane from lice, cut off her Ieſſe, and throw her into the Mewe looſe, either in a high roome or a low roome at your pleaſure, let her perches be lined with canuaſſe, or with woollen liſts for the ſafetie of her feet, let her haue ſtore of water for bathing

and

and oft renewed, and ſtore of meate, as liue Pidgeons, warme Mutton, warme Goate, or Dogges fleſh, any of which will make her Mew quickly.

When to draw Hawkes.

Hawkes for the field, would be drawne from the Mew in *Iune*, and made ready to flye in *Auguſt*, at which time Corne is cut and the Game is ſtrong: and Hawkes for the Riuer would be drawne in *Auguſt*, that they may be ready to fly in *September*.

Diſeaſes in Hawkes.

Hawkes haue diuers infirmities and diſeaſes, as Feauers, Palſey, Impoſthumes, ſore eyes, and Nares, Megrims, Pantas, caſting her Gorge, foulneſſe of Gorge, Wormes, Filanders, ill Liuer, or Goute, Pinne in the foot, breaking the pounce, Bones out of ioynt, Bones broken, Bruiſes, Lice, Colds, Frounce, Fiſtulaes, Stone, much gaping, more foundring, priuy euill, taint in the Feathers, loſſe of appetite, broken wind, blow on the Wing, wounds, ſwellings, eating their owne feet, taking vp of veines in Hawkes, Crampe, and a world of others: All which foraſmuch as I haue ſhewed the Medicines, and cures thereof in the former Treatiſe called *Cheape and Good*, I will refer you vnto the ſame, and not doubt but it will giue you ſatisfaction.

Chap. 6.

Of Courſing with Grey-hounds, and the Excellencies of that ſport.

Of Courſing with Grey-hounds.

NOw if the mind of our Husbandman be not ſo generally taken with the delight & pleſure of this recreation of Hawking, but that he preferreth before it the delight of Courſing with Grey-hounds, which is a very noble and worthy paſtime, he ſhall in it obſerue theſe foure things, the *Breed* of Grey-hounds, their *Shape*, their

their dyet, and the Lawes belonging to the ſame.

Breeding of Greyhounds.

Touching the breed of *Greyhounds* you are principally to reſpect the Countryes in which they are bred, and nouriſhed, as that it be a champaine plaine and without couert, where a *Hare* may ſtand forth & indure a courſe of two miles or more, as it ſhal happen (for the courſing of the *hare*, is that which I purpoſe moſt to entreate of) becauſe in a cloſe countrye ful of couert, where a *hare* cannot run aboue a quarter of a mile or leſſe: both the pleaſure of the recreation is taken away, and the *Greyhound* by an inſufficient exerciſe is made vnapt, and vnfit for that for which he was created.

Beſt places for breed.

Now of champaine countries, they are of three kinds, as the Low vales, as are the vale of *Beluoire*, the vaile of white *Horſe*, the vale of *Euſham*, and ſuch like, the high Downes and Heaths, as about *Salisbury*, *Ciſſeter*, *Lincoln*, and many ſuch like places, and the middle between both as the County of *Northampton*, and *Leiceſter*, and others like them: All which are very excellent places for the breeding and training vp of the beſt *Greyhounds*, yet of the three, your vailles or middle ſoiles, which for the moſt part are errable grounds, are much better to breed and traine on, then your Downes and Heathes, becauſe they are much more labourſome, rough, heauy, and in the winter ſeaſon ful of much trouble & falſe foot-hold, in ſo much that a Dogge which is able to run ſtrongly, ſwiftly, and ſurely there, muſt neceſſarily do it ten times better when he comes to the ſmooth, plaine, and carpet like Doune: whereon the contrary, the Dogge which is trained vpon thoſe euen Downes, though he be right Famous and excellent, when he comes to run in the deepe wel plowed field, is to ſeeke where to beſtow his feete, and can neither ſhew ſpeed, cunning, nor indurance.

The beſt Greyhounds.

Now

Now the Gentlemen which dwel on the Downes and plaine grounds, to maintaine the reputation of their dogs affirme them to be much more nimble and cunning in turning, then the vale dogs be, becauſe the fairenes of the Earth giuing them ſo much aduantage ouer the Hare, that hauing her euen (as it were) in a manner vnder their feet, ſhe is put more to her ſhifts, & ſtriues with greater art of ſleights to deceiue, & get aduantage of the Grey-hound: And it is true, for by reaſon of the aduantage of their Hils, which are great and ſteepe, though ſmooth and plaine, I haue ſeene a vale Dog ſo much deceiued, that vppon a turne, he hath loſt more ground then hath beene recouerable, in the whole courſe after: but this is no want of goodnes but a little skil, which a moneths courſing wil bring a Dog ſo ſufficiently vnto, that he wil not need any other reformation then the knowledge of his errour, by his loſſe of Labour. So that I conclude the good Dog vppon the deeps wil euer beate the good Dogs on the plaine. Nimbleneſſe in Greyhounds.

It is an old receiued opinion amongſt many men of the Leaſhe, that the Grey-hound bitch, wil euer beate the Grey-hound dog, by reaſon of her more nimbleneſſe, quickneſſe and agillity: And it is ſometimes ſeene that a perfect good Bitch indeed, hath much aduantage of an ordinary Dog: but if the good Dogge meet with the good Bitch, there is then no compariſon, but the Dogge wil be her Maſter, in as much as he exceedeth her both in length and ſtrength, the two maine helpes in courſing; for her nimbleneſſe is then no helpe, ſith a good Dog in the turne wil looſe as little ground, as any Bitch whatſoeuer. Differences tweene Dogges and Bitches.

Yet thus much I would perſwade al Gentlemen of the Leaſh to be very careful in their breeding, to breede vpon Dogs and Bitches for breed.

vpon the beſt *bitches* they can prouide, for it is found in experience that the beſt *Dogge* vpon an indifferent *bitch* will not get ſo good a Whelpe, as an indifferent *dogge* vpon the beſt *Bitch*: And amongſt theſe obſeruations in breeding *Grey-hounds*; you ſhall obſerue to haue your *Dogges* and *Bitches* of equall and indifferent ages, as about three or foure yeares old at the moſt; but in caſe of need, your *Bitch* will indure a great deale longer then your *dogge*, and to breed with a young *dogge* on an olde *bitch*, may bring foorth an excellent *whelpe*.

The ſhapes of Greyhounds.

Touching the ſhapes of *Greyhounds* (from whence you ſhall take the beſt Collections for their goodneſſes) they are certayne, and moſt infallable: Therefore touching *Greyhounds*, when they are puppies or young whelpes, thoſe which are moſt raw-bon'd, leane, looſe made, ſickle or crooked hought, and generally vnknit in euery member, are euer likely to make the beſt *dogges*, and moſt ſhapely: but ſuch as in the firſt three or foure moneths, are round, and cloſe truſt, fat, ſtraight, and as it were full ſum'd and knit in euery member, neuer prooue good, ſwift or comely.

Now after your Dogge comes to full growth, as at a yeare and a halfe, or two yeares o'd, he would then haue a fine long leane head, with a ſharpe noſe ruſh-growne, from the Eyes downward: A full cleare eye with long eie lids; a ſharp eare ſhort and cloſe falling, a long necke, a little bending, with a looſe hanging wezand; a broad breaſt, ſtrait forelegs, ſide hollow ribs, a ſtraight, ſquare and flat backe, ſhort and ſtrong fillets, a broad ſpace betweene the Hips, a ſtrong ſtearne or rayle, and a round foot, and good large clefts. Now for the better help of your memory, I wil giue you an old Rime, left by our Fore-fathers, from which you ſhal vnderſtand the true

ſhapes

ſhapes of a perfect *Grey-hound*, and this it is.

If you will haue a good tike.
Of which there are few like.
He muſt be headed like a Snake.
Neckt like a Drake.
Backt like a Beame,
Sided like a Breame.
Tailed like a Ratt.
And footed like a Cat.

Theſe being the principall members of a good *grey-hound*, if they reſemble the proportions of the things a boue named, the dogge cannot chuſe but be moſt perfect.

When you haue thus a perfect and well-ſhap't *grey-hound*, your next rule is to apply your ſelfe to the dyetting and ordering of him, for the pleaſure to which you keepe him, that bringing him to the vttermoſt height or ſtrength of winde, you may know the vttermoſt goodnes that is within him, which diſorderly and foule keeping will conceale, and you looſe a Iewell for want of knowledge of the value. Dyetting of grey-hounds to courſe,

Dyetting then of *grey-hounds* conſiſteth in foure eſpeciall thinges, to wit, *foode, exerciſe, ayring*, and *kenelling*, the firſt nouriſhing the body, the ſecond the limbes, the third the winde, and the laſt the ſpirits. Of what dyetting conſiſteth.

To ſpeake then firſt of foode it is two fold, either generall, or particular; generall as for a continuall vpholding and maintaining of a dogge in good ſtate of body, being in good plight and liking, or particular, when a dogge is either poore, ſick, or prepared for wager, ſtandeth in neede of particular foods of aduantage. Of foode.

Of generall foode.

The beſt generall foods for the ordinary vpholding of a dogge in a good ſtate of body is chipplng s, cruſts of bread, ſoft tender bones or griſtels of Veale, Lambe, or ſuch like; firſt ſcalded in beefe-broth not very ſalt, or other broath in which hath beene boiled, mutton, veale, veniſon, or any kinde of Pullen, or for want thereof, other cleane ſcalding water, after your chippings or bread is ſcalded you ſhall let it ſtand and coole, then when your feeding houre commeth, you ſhall take as much good milke, flotten milke, or butter milke (but the beſt is moſt wholeſome) as will fully or more then whiten the ſame, for it is to be intended that your water muſt be all drunke vp into your bread, and your milke muſt onely make it ſwim, and with this feed your dogge morning & euening after you come from walking him, and giue him a good and ſufficient meale thereof, for this will onely maintaine and vphold him in good ſtate of body, being ſtrong and luſty in fleſh before.

Of particular foode.

For particular food which is when a dogge is poore, ſicke or to be prepared for wadger they be theſe: Firſt, if he be poore in fleſh, ſickly or weake the beſt food you can raiſe him vp withall is to take ſheepes heads wooll and all cleane waſht, and breake them all to peeces, then put them in a Cauldron or Kettle, and after the water hath riſen and is cleane skum'd, put vnto it good ſtore of oat-meale and ſweet pot-hearbs ſmall chopt together & ſo boile it till the fleſh be tender; then with this meat and the pottage feed your *grey-hound* morning and euening, and it wil ſoone put him into great luſt & ſtrength;

Foode for a match.

but if you will prepare him for match and wadger, then you ſhall make him this diet-bread, take a pecke of the fineſt and drieſt oat-meale, & two pecks of good wheat, and hauing ground them together, boult the meale thorough

rough a fine boulting cloath, & then ſcattering amongſt it a pritty quantity of Any-ſeeds and Licoras wel beaten together, kneade it vp with the whites of egges, new ale and barme mixt together, and ſo bake it in pretty round loaues reſonable hard, with this bread either ſcalded, as was before ſhewed in your chippings, or put into the pottage with the Sheepes-heads warme, feed your dog morning and euening, to wit, halfe an howre after Sunne riſe, and halfe an howre before Sun ſet, when you come from walking or ayring him, and it will bring him to exceeding great ſtrength of body and pureneſſe of winde. Howers of feeding.

For the exerciſe of your *gray hound*, it conſiſteth likewiſe in two thinges, courſin and ayring; and they be euery way as neceſſary as is foode, becauſe it onely bringeth ability to his limbes and perfitneſſe to his winde: to ſpeake then of courſing, you ſhall not faile to courſe him at leaſt twice a weeke: If your courſes be ſtrong & long: but thrice a weeke, if they be but reaſonable as a mile or a mile and a halfe at moſt, and ſome times if your courſes be ſhort and vnder a mile. In courſing you ſhall obſerue two things *blond* and *labour*; *blond* which is a hartning and animating of your dogge to delight in the pleaſure, when he findes the reward of his paines taking; for if a dog courſe continually and neuer kill, the ſport will growe yrkſome vnto him, and therefore now and then, giue him ſuch aduantage that he may kill the Hare, then *labour*, which is contrary to killing; for in it you muſt giue the Hare all indifferent aduantage, both by lawe and otherwiſe, whereby ſhe may ſtand long before the dogge, and make him ſhewe his vttermoſt ſtrength before he be able to reach her. Of exerciſe by courſing

After your dogge hath courſt, if he kill you ſhall by

Ordering dogs often coursing.

no meanes suffer him to brake the Hare, but hauing taken her from him first clense his mouth and chaps from the wool of the Hare, & then giue him to eate the liuer, lights, and heart, and so take him vp in your lease, leade him home, and there first wash his feete in a little butter and beere, and so put him vp in the kennel, and halfe an houre after feede him; for vpon his coursing dayes you must by no meanes giue him any meate more then a white-bread toast and butter, or a toast and oyle, which must be giuen before his morning ayring, and so keneled till he goe to his course.

Of ayring.

Touching ayring or walking of *grey-hounds*, which is a great nourisher and increaser of winde, it must dewly be done euery morning before Sun-rise, and euery euening before or after Sunne set in this manner, as soone as you haue opened your kennell and rub'd your dogge ouer with a cleane haire cloath, you shall let him play a little about you before the kennell dore, then take him vp into your leash and walke him forth into the fields, where for the most part are no sheepe or other final cattell, which they may out of wantonnesse indaunger, and there let wim loose and giue him leaue to play and scope about you, so that he may skummer, pisse, and emptie his body, which when he hath done sufficently, you shall then take him vp in your leash againe, and so walke him home and kennell him, this you shall doe after the same manner in the euening; and also if your dogge bee stronge and lustie at night after supper, and then bringing him home bring him to the fire, and there let them stretch and beake themselues, and with your hand grope and cleanse them from ticks and other filth, which done leade them to the kennell, and shut them vp for all night.

Now

Now for the kenelling of *Greyhounds*, it is a right neceſſary action and muſt be performed with al diligence, for it breedes in the Dogge luſt, ſpirit, and nimbleneſſe, preuents diuers miſchaunces, and keepes the powers from ſpending till time of neceſſity: and therefore you ſhall by no meanes ſuffer your Dogge to bee out of the kennell, but in the houres of feeding, walking, courſing, or when you haue other neceſſary buſineſſes to doe about him.

Chap. 7.

The Lawes of the Leaſhe or Courſing, as they were commanded, allowed, and ſubſcribed by Thomas *late Duke of Norfolke, in the raigne of* Q. Elizabeth.

Now laſtly, touching the Lawes of the Leaſhe, or Courſing, though they be vncertainly receiued, and alter with mens various opinions, yet theſe vnder-written were held for authentical once and inuented, receiued, and ſubſcribed vnto by many noble and worthy Perſonages, ſuting fully with the reaſons and grounds of the paſtime. Of Kenelling the Greyhound.

Firſt therefore it was ordered that he which was choſen Fewterer or letter looſe of the *Greyhounds*, ſhould receiue the *Greyhounds* matcht to run together into his Leaſhe, aſſoone as he came into the field, and to follow next to the Hare-finder til he came vnto the forme: and no *Horſeman* nor *Footeman* on paine of diſgrace to goe before them, or on either ſide, but directly behind, the ſpace of forty yards or thereabouts.

Item, that not aboue one brace of *Greyhounds*, to courſe a *Hare* at one inſtant.

Item, that the *Hare finder* should giue the *Hare* three *ſo-howes* before he put her from her Leat, to make the *Grey-hounds* gaze and attend her riſing.

It. That the *Fewterer* ſhall giue the *Hare* twelueſcore Law, ere he looſe the *Grey-hounds*, except it be in danger of looſing ſight.

It. That Dogge which giueth the firſt turne, if after the turne be giuen, there be neyther coate, ſlip, nor wrench extraordinary, then he which gaue the firſt turn ſhall be held to winne the wager.

It. if one Dog giue the firſt turne and the other beare the Hare, then he which beare the Hare ſhall win.

It. if one Dog giue both the firſt turne and laſt turne, and no other aduantage betweene them, that odde turne ſhall win the wager.

It. that a coate ſhal be more then two turnes, and a go by, or the bearing of the Hare equall with two turnes.

It. if neyther Dogge turne the Hare, then he which leadeth laſt at the couert, ſhall bee held to winne the waged.

It. if one Dogge turne the Hare, ſerue himſelfe, and turne her againe, thoſe two turnes ſhall be as much as a coate.

It. if all the courſe be equall, then he onely which beares the Hare ſhall winne, and if ſhee be not borne, then the courſe muſt be adiudged dead.

It. if he which comes firſt into the death of the Hare, takes her vp and ſaues her from breaking, cheriſheth the Dogs, and cleanſeth their mouthes from the wooll, or other filth of the Hare, for ſuch curteſie done, he ſhall in curteſie challenge the Hare; but not doing it, he ſhall haue no right, priuiledge or title therein.

It. if any Dog ſhal take a fall in the courſe, and yet per-

performe his part, he ſhall challenge the aduantage of a turne more then he glueth.

Item, if one Dog turne the Hare, ſerue himſelfe, and giue diuers coats, yet in the end ſtand ſtil in the field, the other Dog without turne giuing, running home to the couert, that Dogge which ſtood ſtill in the field, ſhal be then adiudged to looſe the wager.

If any man ſhall Ride ouer a Dogge and ouerthrow him in his courſe (though the Dogge were the worſe Dogge in opinion) yet the party for the offence ſhall eyther receiue the diſgrace of the field, or pay the wager, for betweene the parties, it ſhall be adiudged no courſe.

Item, thoſe which are choſen Iudges of the Leaſhe, ſhall giue their iudgements preſently, before they depart from the field, or elſe he in whoſe default it lyeth, ſhall pay the Wager by a generall Voyce and ſentence.

And thus much for the Lawes of Courſing, and thoſe particularities which do depend thereupon: All which, I ſubmit vnto the Correction and amendement of thoſe VVorthy and well knowing Gentlemen, who hauing the Office of the Leaſhe conferd vppon them; haue both Authority and Power to make Lawes therein, according vnto the Cuſtomes of Countries, and the Rules of reaſon.

The end of Hawking.

Of particular Recreations.

Chap. 8.

Of diuers other particular Recreations.

Of shooting in the Long-bow.

HEre be many other particular Recreations neceſſary for the knowledge and practice of our Husbandman: as firſt, ſhooting in the Long-bowe, which is both healthful for the Body, and neceſſary for the Common-wealth, the firſt extending the Limbes and making them plyant; the other, an able ſtrength fit to preſerue and defend his Countrey. And firſt for ſhooting in the Long-bow, a man muſt obſerue theſe few Rules, firſt that he haue a good eye to behold and diſcerne his marke, a knowing iudgement to vnderſtand the diſtance of ground, to take the true aduantage of a ſide-winde, and to know in what compaſſe his arrow muſt flie, and a quicke dexterity to giue his ſhaft a ſtrong, ſharpe, and ſuddain looſe, he muſt in the action it ſelfe ſtand faire, comely, & vpright with his body, his Left foote a conuenient ſtride before his right, both his hammes ſtiffe, his left arme holding his Bowe in the midſt ſtretcht ſtraight-out, and his right arme with his three firſt fingers and his thumb drawing the

the ſtring vnto his right eare, the nocke of his arrow reſting betweene his fore-finger, and long finger of his right hand, and the ſteale of his arrow below the feathers vpon the middle knuckle of his fore-finger on his left hand, hee ſhall draw his arrow vp cloſe vnto the head, and deliuer it on the inſtant without hanging on the ſtring; the beſt Bowe is eyther Spaniſh or Engliſh yewe, and the worſt of Witchen or Elme, the beſt ſhaft is of Burch, Sugar cheſt, or Brazel, and the beſt feather gray or white.

The Markes to ſhoote at are three, Buts, Prickes, or Roauers: the But is a leuell Marke, and therefore would haue a ſtrong Arrow with a very broad Feather: The pricke is a marke of ſome compaſſe, yet moſt certayne in the Diſtance, therefore would haue nimble ſtrong Arrowes with a middle Feather, all of one weight and flying; and the Roauer is a marke incertayne, ſometimes long, ſometimes ſhort, and therfore muſt haue arrowes lighter, or heauier, according vnto the diſtance of place.

If infirmity in the armes, or backe take from a man the vſe of the Long-bow, he may then with a Crosbow made for gafel carried vpon a ſtring, and the nether end placed in a reſt with arrowes made ſtrong, heauy, and ſutable to the ſtrength of the Bowe, ſhute at all the former Markes, and reape the ſame pleaſure he formerly did with his Long-bow. Of ſhooting in Crosbowes.

There is another Recreation, which howſoeuer vnlawful in the abuſe thereof, yet exerciſed with moderation, is euen of Phyſitions themſelues held exceeding wholſome, and hath beene preſcribed for a recreation to great Perſons, and that is Bowling in which a man ſhal finde great Art in chooſing out his ground, and preuen- Of Bowling.

ting

ring the Winding, Hanging, and many turning aduantages of the ſame, whether it be in open Wide places, or in cloſe allies, and in this ſport, the chuſing of the Bowle is the greateſt cunning; your flat Bowles being the beſt for cloſe Allies, your round byazed Bowles for open Grounds of aduantage, and your round bowles like a Ball, for greene-ſwarthes that are plaine and leuell.

Not inferiour to theſe ſports, eyther for health or action, are the Teniſe, or Baloone, the firſt being a paſtime in cloſe or open Courts, ſtriking a little round ball too or fro, eyther with the palme of the hand, or with Racket: The other a ſtrong and moouing ſport in the open fields, with a great Ball of double Leather fild with Winde, and ſo driuen too and fro with the ſtrength of a mans Arme arm'd in a Bracer of Wood, eyther of which actions muſt be learnt by the Eye and practiſe, not by the Eare or Reading.

OF

Of Angling, &c.

Chap. 9.

The whole Art of Angling, as it was written in a ſmall Treat ſe in Rime, and now for the better vnderſtanding of the Reader, put into Proſe, and adorned and inlarged: And firſt of Angling, the vertue, vſe, and Antiquity.



Since Pleaſure is a Rapture, or power in this laſt Age, ſtolne into the hearts of men, and there lodged vp with ſuch a careful guard and attendance, that nothing is more Supreame, or ruleth with greater ſtrength in their affections, and ſince all are now become theſonnes of Pleaſure, and euery good is meaſured by the delight it produceth: what worke vnto men can be more thankefull then the Diſcourſe of that pleaſure which is moſt comely, moſt honeſt, and giueth the moſt liberty to Diuine meditation, and that without all queſtion is the Art of Angling, which hauing euer beene moſt hurtleſly neceſſary, hath beene the ſport or Recreation of Gods Saints, of moſt holy Fathers, and of many worthy and reuerend Diuines, both dead, and at this time breathing.

For

The vse of Angling, and the vertue.

For the vse thereof (in its owne true and vnabused nature) carrieth in it neither couetousnesse, deceipt, nor anger, the three maine spirits which (euer in some ill measure) ruleth in all their pastimes: neither are alone predominant without the attendance of their seuerall handmaides, as Theft, Blasphemy or Bloodshed: for in Dice-play, Cards, Bowles, or any other sporte where money is the goale to which mens minds are directed, what can mans auarice there be accounted, other then a familiar robbery, each seeking by deceipt to couzen and spoile other of that blisse of meanes which God had bestowed to support them and their families? And as in euery contention there must be a betterhood or super-excelling, so in this, when the weaker deceipt is deprived his expectation, how doth it then fall into curses, oathes, and furies, such as would make Vertue tremble with the imagination.

But in this Art of Angling there is no such euill, no such sinfull violence, for the greatest thing it coueteth, is for much labour a little Fish, hardly so much as will suffice Nature in a reasonable stomacke: for the Angler must intice, not command his reward, and that which is worthy millions to his contentment, another may buy for a groate in the market. His deceipt worketh not vpon men but vpon those Creatures whom it is lawfull to beguile for our honest recreations or needfull vses, and for all rage and fury it must be so great a stranger to this ciuill pastime, that if it come but within view or speculation thereof, it is no more to be esteemed a Pleasure, for euery proper good thereof in the very instant faileth, shewing vnto all men that will vndergoe any delight therein that it was first inuented, taught, and shall for euer bee maintained by Patience onely.

very

And

And yet I may not ſay onely *Patience*, for her other three Siſters haue likewiſe a commanding power in this exercise, for *Iuſtice* directeth and appointeth out thoſe places where men may with liberty vſe their ſport, and neyther do iniury to their neighbours, nor incurre the cenſure of inciuility. *Temperance* layeth downe the meaſure of the action, and moderateth deſire in ſuch good proportion, that no Exceſſe is found in the ouer-flow of their affections. Laſtly, *Fortitude* inableth the minde to vndergo the trauaile, and exchange of Weathers with a healthful eaſe, and not to diſpaire with a little expence of time, but to perſeuere with a conſtant imagination in the end to obtayne both pleaſure and ſatisfaction.

Now for the Antiquity thereof, (for al pleaſures, like Gentry, are held to be moſt excellent, which is moſt ancient) it is by ſome Writers ſayd to be found out by *Ducallion* and *Pyrrha* his Wife, after the general flood: others write, it was the inuention of *Saturne*, after the peace concluded betwixt him and his brother *Tytan*: and others, that it came from *Bellus* the ſonne of *Nimrod*, who firſt inuented al holy and vertuous Recreations: and al theſe though they ſauour of fiction, yet they differ not from truth, for it is moſt certayne that both *Ducallion*, *Saturne*, and *Bellus*, are taken for figures of *Noah*, and his Family, and the inuention of the Art of Angling, is truly ſayd to come from the ſonnes of *Seth*, of which *Noah* was moſt principal. Thus you ſee it is good, as hauing no coherence with euil, worthy of vſe: inas much as it is mixt with a delightful profit: and moſt ancient, as beeing the Recreation of the firſt Patriarkes, wherefore now I will proceede to the Arte it ſelfe, and the meanes to attaine it. The antiquity of Angling.

CHAP.

Chap. 10.

Of the Angle-rod, Lines, Corkes, Hookes, and other tooles for Angling.

IN as much as the first ground Worke or Substance of this Art of Angling consisteth in the implements belonging and appertayning thereunto, and that except a man be possest of them which are most exact, nimble, or necessary for the same, his labour is vayne, and to little or no purpose imployed, and for as much as the Angle-rod is the greatest, principallest, and sole directour of all other Tooles belonging thereunto, I thinke it not amisse to begin with the choyse and order thereof, according to the opinions of the best noted Anglers, which eyther haue bin in times past, or are at this day liuing.

Of the Angle-Rod.

For the choyce then of your Angle-Rod, you shall vnderstand that some Anglers are of opinion, that the best should be composed of two pieces, a maine body, and a small pliant top. The maine body would be of a fine growne ground-witchen, or a ground Elme, of at least nine or ten foote in length, straight, smooth, without knots, and not much differing, at eyther end in one substance or thicknesse. It would bee gathered at the fall of the Leafe, neere, or about *Al hallontide*, and layd vp in some dry place, where it may lye straight, and of it selfe season: For to beake them in the fire (as many do) when they are greene, is not so good, but after they be well dryed and seasoned of themselues, then to beake them in the fire, and set them so straight and euen that an arrow cannot surpasse them, is excellent; then you may take off the vpper rinde, and what with the smoake, and their owne age, their colour will be so darke

darke, that they will giue no reflect into the Water, (which is a principall obſeruation.) Your Rod being made thus ſtraight and ſeaſoned, you ſhall at the vpper end thereof, with an Augure or a hot iron, but a hot iron is the better, burne a hole about three inches deep, and of a fingers wideneſſe: then on the outſide of the Rod, from the top of the hole vnto the bottome, you ſhall warpe it about eyther with ſtrong double twiſted threed well Waxed or pitcht, or with Shoo-makers threed many times doubled, and well waxed with Shooe-makers Waxe, and the laſt end faſtned vnder the laſt foulds, ſo cloſe and ſo ſure, that it may by no meanes looſe; for this will keep the Rod from cleauing or breaking in that ſame place, where the hollowneſſe was made.

The ſtocke being thus made, you ſhall into the hole fixe the Top, which would be a very ſmall ground Hazell, growing from the Earth vpward, very ſmooth and ſtraight, which would be cut at the latter end of the yeare, and lye in ſeaſon all the Winter, the vpper Rinde being by no meanes taken off, neyther the Rod put into the fire at all, but only ſeaſoned in a good dry place, where it may lye ſtraight, and haue both the Winde and ſome Ayre of the fire to come vnto it. This Top muſt be plyant and bending, yet of ſuch a ſufficient ſtrength that it will not breake with any reaſonable ierke, but as it is any way bowed, ſo to returne againe to the former ſtraightneſſe. This toh wand would be of a yard and a halfe, or an Ell at leaſt in length, and at the ſmalleſt end thereof would be faſtned with a warpe of haire, a ſtrong loope of haire, about an inch long, to which you may at pleaſure faſten your fiſhing line: and the bigger end of the top, muſt be thruſt into the ſocket

Of the Top of the Angle rod

of

of the ſtocke, and made ſo faſt that it may not looſen nor ſhake out with any ſhaking, or other reaſonable violence. And all be the Witchen or ground-elme are accounted the beſt to frame theſe maine ſtockes of, yet I haue ſeene nery good ſtockes made both of Sallow, Beech, or Poplar: for the lighter your Rod is (ſo it be ſtrong) it is ſo much the better, and more for the eaſe of him that vſeth it.

The Angle-rod of one peece.

There be other approued good Anglers which allow onely that Rodde which is compoſed all of one entire peece, and thinke them ſtronger, nimbler, and leſſe eaſuall, and theſe Rods they would haue choſen of an excellent ſtraight and well growne ground-Hazell, being from the bottome to the top finely ruſh growne, the vpper end thereof being ſmall, pliant and bending. This Rod would be gathered at the fall of the leafe, when the leaues are ſome fallen and ſome ſticking: as ſoone as you haue cut them vp, you ſhall cut away the leaues and ſmal ſprigs, yet not ſo neere that you hurt the Barke (for that by no meanes muſt be ſtird, as well for the ſtrength of the Rod, as for the colour, which being darke will not ſo ſoone catch the eye of the Fiſh, and offend them.) Then bringing your Rods home, you ſhal lay them vppon a leuell flore, and preſſing them downe with good weights, to keepe them from warping; let them lye and ſeaſon all the Winter: Then in the Spring-time take them vp, for your purpoſe, which is onely to make the knots ſmooth, and to fixe your loope of haire vnto the vpper end. Now of theſe Roddes, the longeſt is the beſt, ſo it be ſtraight and wel growne, for moſt commonly they are ſo ſhort that they wil ſerue to fiſh with but in little narrow Brookes, or elſe in a Boat, in great Waters.

There

There be other Anglers, and many of the beſt and approuedſt iudgements, which allow the Angle-rod of many pieces: as thoſe which are made of Cane, each piece exceeding another one degree, in ſuch euen proportion that being fixed and thruſt one within another they will ſhew as one euen & moſt ſtraight ruſh-growne body, without any crookedneſſe or other outward euill fauouredneſſe: theſe pieces would not be aboue foure foot in length a piece, and three ſuch pieces, which make twelue foot, are ſufficient for the ſtocke of the Rodde, beſides the toppe: now for thoſe ends which are the ſockets, into which you fixe the other Canes, you ſhall hoope them about with fine plates of Braſſe, an inch & an halfe broad, well ſodered, and ſmoothly filed, which will keepe the Cane from cleauing: and for the toppe of this Rod, the round Whale bone is thought the beſt, and ſurely in my conceit ſo it is, both for this or any other rodde whatſoeuer, for it is tough, ſtrong, and moſt plyant: theſe Rods moſt commonly are made to haue the ſmall Canes thruſt downe into the wide Canes, ſo that a man may walke with them as with a ſtaffe, and when he pleaſeth to drawe them forth, and vſe them as occaſion ſhall be offered: the onely exception which is taken at theſe kinde of Roddes, is the bright colour of the Cane, which reflecting into the water, oft times ſcareth the Fiſh, and maketh them afraid to bite. But if you fiſh in deepe and thicke waters, there is no ſuch matter, for the ſhadow of the Rodde is not diſcerned through the Sunne, onely in ſhallow and cleere Brookes it is a little hinderance, and therefore he which is a Maſter in this Art will Vmber and darken the Rodde, by rubbing it ouer a gentle fire with a little Capons greaſe, and browne of Spaine, mixt together.

The Angle-rod of many pieces.

Of the Lines.

Now for your Lines, you ſhall vnderſtand that they are to be made of the ſtrongeſt, longeſt, and beſt growne Horſe haire that can be got, not that which groweth on his Maine, nor vpon the vpper part or ſetting on of his tayle, but that which groweth from the middle and inmoſt part of his dock, and ſo extendeth it ſelfe down to the ground, being the biggeſt and ſtrongeſt haires about the Horſe: neither are theſe haires to be gathered from poore, leane, & diſeaſed Iades of little price or value, but from the fatteſt, ſoundeſt, and proudeſt Horſe you can finde, for the beſt Horſe hath euer the beſt hayre, neither would your hayres be gathered from Nagges, Mares, or Geldings, but from ſtond-Horſes onely, of which the blacke haire is the worſt, the white or grey beſt, and other colours indifferent: thoſe Lines which you make for ſmall Fiſh, as Gudgeon, Wirling, or Menow, would be compoſed of three hayres: thoſe which you make for Pearch, or Trout, would be of fiue hayres: and thoſe for the Chub or Barbel, would be of ſeauen: to thoſe of three hayres you ſhall adde one threed of ſilke: to thoſe of fiue two threeds of ſilke: and to thoſe of ſeauen three threeds of ſilke: you ſhall twiſt your hayres neither too hard nor too ſlacke, but euen ſo as they may twinde and couche cloſe one within another and no more, without either ſnarling or gaping one from another: the end, you ſhall faſten together with a Fiſhers knot, which is your ordinary faſt knot, foulded foure times about, both vnder and aboue, for this will not looſe in the water, but being drawne cloſe together will continue when all other knots will faile, for a hayre being ſmooth and ſtiffe, will yeeld and goe backe if it bee not artificially drawne together: your ordinarie Line would be betweene three and foure fa-

dome

dome in length, yet, for as much as there are diuerſities in the length of Rods, in the depth of waters, and in the places of ſtanding to Angle in, it ſhall be good to haue Lines of diuers lengths, and to take thoſe which ſhall be fitteſt for your purpoſe.

The colouring of Lines.

Theſe Lines, though the naturall hayres, being white or grey, be not much offenſiue, yet it ſhall not be amiſſe to colour them according to the ſeaſons of the yeere, for ſo they will leaſt ſcare the Fiſh, and ſooneſt intiſe them to bite with moſt greedines: and of colours the beſt is the Water-greene, which you ſhall make after this manner: Take a pottle of Allome water, and put thereunto a great handfull of Marigolds, and let them boile well till a yellow skum riſe vpon the water, then take halfe a pound of greene Coperas, and as much Verdigreaſe, beaten to fine pouder, and put it with the haire into the water, and ſo let it boyle againe a pretty ſpace, and then ſet it by to coole for halfe a day: then take out your hayre, and lay it where it may dry, and you ſhal ſee it of a delicate greene colour, which indeed is the beſt Watergreene that may be.

This colour is excellent to Angle with in all cleere waters where the Line lies plaine and moſt diſcouered, and will continue from the beginning of the Spring to the beginning of Winter. Now if you will haue your Lines of a yellow colour, you ſhall boile your haire in Allome water, mixt onely with Marigolds, and a handful of Turmerick: but if you cannot get Turmericke, then you ſhal ſtampe ſo much of greene Walnut-tree leaues, and mixe it with the water, and ſteepe your haire there in twenty and foure houres at leaſt.

Lines of this colour are good to Angle with in waters that are cleere, yet full of weeds, ſedge, & ſuch like,

for it is not vnlike to the ſtalkes of theſe weedes, and it will wel continue to Angle withal the firſt part of the winter, as from before Michaelmas til after Chriſtmas.

If you will haue your Lines of a Ruſſet colour, you ſhall take a quart of Allome water, and as much ſtrong Lye, then put thereto a handfull of ſoote, and as much browne of Spaine, and after it hath boyled an houre or two, ſet it by to coole, and when it is colde ſteepe your hayre therein a day and a night, and then hang it vp to drye: theſe coloured Lines are good to Angle with in all deepe waters, whether they be Riuers or ſtanding Pooles, as Ponds, and ſuch like, and are moſt in vſe from Chriſtmas till after Eaſter.

Now if you will haue your Lines of a Browne or Duſkiſh colour, you ſhall take a pound of Vmber, and halfe ſo much Soote, and ſeeth it in a pottle of Ale a good ſpace, then, when it is cold ſteep your hayres therein a day and a night, and then hange them vp to drye, and the colour will be perfect, yet euer the darker you would haue it, the more Vmber put vnto it: theſe Lines are excellent to Angle with in waters that are black, deepe, and muddy, be they either running or ſtanding waters, and will continue all ſeaſons of the yeere whatſoeuer, onely in bright waters they are too blacke, and caſt too large a ſhadow. Laſtly, if you would haue your Line of a tawny colour (although in the water it ſheweth almoſt all one with the other darker colours) you ſhall take Lime and water, mixe it together, & ſteep your haire therein halfe a day, and then take it forth and ſteepe it double ſo long time in Tanners ouze, and then hang it vp to dry, and the colour will be perfect: theſe Lines are beſt to Angle with in moriſh and heathy waters, which are of a reddiſh colour, and wil ſerue for that

purpose al seasons of the yeere: if with this colour, or the greene, you mixe a siluer threed it will not be amisse, & with the other colours a gold threed it is good also: and note, that at each end of your Line you make a loope, the one to fasten to the toppe of your Rodde, being the larger, and the other to fasten your hooke-Line vnto, which would be some what lesser.

After your Lines be made, you shall make your Corks of the Corke. in this manner: take of the best and thickest Corke you get, and with a fine Razor hauing pared it smooth on the outside, cut it into the fashion of a long *Katherine* Peare, bigge and round at the one end, & long and slender at the other, and according to the strength of your Line, so make your worke bigger or lesser, as for a Line of three hayres, a Corke of an inch and halfe in length, and as much in compasse in the thickest part is bigge enough: and for a Line of more haires, a Corke of more length, & compasse will become it: and indeed to speak truly for as much as it serueth, but only for a direction to your eye to know when the fish biteth, & when you shal strike, the lesser your Corke is, the better it is, and breedeth lesse affright in the water, in so much that many Anglers will fish without any Corke, with a bare quill only, but that it is not so certaine, nor giueth so sure direction as the Corke doth. After you haue shaped your Corke, you shal with a hot Iron boar a hole, long-wise, through the middest thereof, and into that hole thrust a quill, & through the quill draw your Line, and fasten them both together with a wedge of the hard end of the goose feather: and note that both your quill and your wedge be white, for that breedeth least offence on the water, then place the smaller end of your Corke downe towardes your hooke, and the bigger end towardes your rod, that

the ſmaller end, ſinking downe with the hooke, the bigger may floate aloft and beare the quill vpward, which when at any time, you ſee or perceiue puld downe into the water, then you may ſafely ſtrike, for without doubt it is an aſſured ſigne that the fiſh hath bitten at the baite.

There be other Anglers which make their Corkes in the faſhion of a Nunne gugge, ſmall at both ends, and bigge in the middeſt, and it is not much to be diſliked, onely it is a little ſooner apt to ſinke, and you may thereby ſtrike before the fiſh haue fully bitten. Others ſhape their Corkes in the faſhion of a whirle, or of a little Apple, round, flattiſh of both ſides, and this Corke is beſt to Angle for the greateſt fiſhes, becauſe it being not ſo apt to ſinke, will floate till the hooke bee faſtned, and that the fiſh beginneth to ſhut away with the bayte, ſo that a man then ſtriking can ſeldome or neuer looſe his labour.

Of Angle in hookes.

Next to your Corkes is your hookes, and they be of diuers ſhapes and faſhions, ſome bigge, ſome little, ſome between both, according to the fiſh at which you angle, the beſt ſubſtance whereof to make them, is either old Spaniſh Needles, or els ſtrong Wyer drawne as neere as may be to that hight of tempers, which being neeled and alayde in the fire, you may bend and bow at your pleaſure. Now for the beſt ſoftning of your wyer, if you make your hookes of old Needles, you ſhall neede but to hold them in the blaze of a Candle till they be red hot, and then let them coole of themſelues, and they will be ſoft, & plyant enough; but if you make your hookes of ſtrong Spaniſh wyer, you ſhall roule it rounde, and then laye it vpon burning Char-coales,

turning

turning it vp and downe till it be all red hot in euery place, then let it gently coole of it ſelfe, and it will be ſoft enough. Now for the making of your hookes, I aduiſe you to goe to ſuch as are beſt reputed for making of them, and buy of all ſorts of hookes from the biggeſt to the leaſt, that is to ſay, from that which taketh the Loach, to that which taketh the Salmon, and let them lye before you for examples: then looke of what ſort of hookes you intend to make, and with a fine file, firſt make the point of your hooke, which would neyther be too ſharpe, for then it will catch hold of euery thing, when it ſhould not, nor too blunt, leaſt it faile to take hold when there is occaſion: therefore in that obſerue a meane, making it leſſe ſharpe then a fine Needle, and more ſharpe then a ſmall pinne. When you haue made the point then with a thinne knife of a very good edge, you ſhal cut out and raiſe vp the berd which you ſhall make greater or leſſe, according to the bigneſſe of the hooke, and the and the ſtrength or the Wyer: for you muſt by no meanes cut the beard ſo deepe, that thereby you weaken the hooke, but it muſt be as ſtrong in that place as any other. When the point and beard is made, you ſhall with a fine paire of round Plyers turne and compaſſe the hooke about, making it round, circular-wiſe, being ſomewhat more then a ſemicircle, and euer obſerue that the rounder the compaſſe or bought commeth in, that ſo much the better proportioned the hook is. This done, you ſhall leaue as much as you thinke conuenient for the ſhanke, and then cut it off from the reſt of the Wyer: which done, you ſhall beate the end downe flat, and ſomewhat broader then the reſt, and ſo poliſh and ſmoothe it all ouer, then heating it

red hot in a little pan of Charcoales put it suddainly into the Water, and quench it, which will bring your hooke to a ful strength and hardnesse. Thus you see how to make hookes of al sizes and shapes, whether they be single or double hookes, for although the quantities alter, yet the shapes do not; and the double hookes which is, the Pike-hooke is no other, but two single hookes all of one Wyer, turned contrary waies: and this double hooke must not haue the Line fixt vnto it, but a strong Wyer ioynted vnto it of three inches long, wel wound about and warped with a smaller Wyer: then to it another Wyer of the same length, as if they were two seueral linkes ioyned together, and then the Line fixed to the last Linke, and therefore are called armed hookes, for they defend the line from shearing or cutting in pieces with the teeth of the Pike.

Now for your single Hookes, you shal thus fit them vnto your Lines, take a length of your twisted Haytes, containing that number which is fit for the hook, and hauing made a strong loope at the one end, lay the other end where is no bought vpon the inside of your hook, then with a strong red silke, eyther single or double, according to the bignesse of the hooke, being wel waxed, whippe and warp the hook round about, as thicke, close, and straight as may be, in such sort as you see men whip their Bow-strings, and in the same manner make the ends of your silke fast; then with a payre of sizers cut the silke and haires off close by the hooke, and you may be sure that they will not loose one from another, with reasonable violence.

After your hook is thus fastned to your Line, you shal then plumbe your Line, which is to fixe certayne pieces of Lead, according to the bignesse of your Line

about

about it, ſome being in length a quarter of an inch, ſome halfe an inch, ſome bigger, and ſome leſſe, according vnto the waight of your Hooke, and bigneſſe of your Corke, for theſe plumets are but only to carry down your hooke, and lay it in the bottome, neither being ſo heauy to make the Corke ſinke, nor ſo light as not with the ſmalleſt touch to make the Corke dip into the water; you ſhal then vnderſtand that your firſt plumet would be twelue or fourteene inches from the Hooke, the reſt not aboue one inch diſtance one from another, not being aboue fiue or ſeauen at the moſt, albe ſome Anglers vſe nine, and ſome more, as their fancies rules them. There is in plumbing of Lines three ſeueral faſhions of plumets vſed, as one long, another ſquare, and the third in a Diamond forme, but all tending to one end, haue but one vſe, and the long ones are accounted the beſt, ſo that they boneatly ſet to, and the ends very ſmooth and cloſe layd downe, ſo that they tangle not the Line by catching hold vpon Weeds, or other traſh in the bottome of the water.

Thus haue you ſeene the beſt choiſe of Rods, Lines, Corkes, and Hookes, and how to fixe and couple them altogether to doe their ſeuerall Offices, it now reſteth that wee ſpeake of other neceſſary implements, which ſhould accompany the painefull and induſtrious *Angler*, and they be theſe: He ſhall beſides theſe before ſpoken of, haue a large Musket bullet, through which hauing fixed a double twiſted threed, and therof made a ſtrong loope, he may at his pleaſure hang it vpon his hook, and therewith ſound the depth of euery water, and ſo know how to plumbe his lines, and place his Corke in their due places, then he ſhal haue a large ring of lead, ſix inches at leſt in compaſſe, & made faſt to a ſmal long line, through

Of other implements for Anglers.

through which, thrusting your Angle-rod, and letting it fall into the Water by your haire Line, it wil helpe to vnlooſe your Hooke if it be faſtned, either vppon weeds or other ſtones in the Water.

Then he ſhal haue a fine ſmooth board of ſome curious Wood for ſhew ſake, being as bigge as a Trencher, and cut battlement-wiſe at each end, on which he ſhal fold his ſeueral Lines. His hookes he ſhal haue in a dry cloſe boxe, he ſhal haue a little Bagge of red cloath, to carry his wormes in, and mixe with them a little freſh mould and Fennel; then he ſhal either haue a cloſe ſtopt Horne, in which he ſhall keep Maggots, Bobbes, Palmers, and ſuch like, or a hollow Cane, in which he may put them, and Scarrabs: He ſhal haue a cloſe boxe for all ſorts of line flyes, and another for Needles, Silke, Thread, Waxe, and looſe haires, then a roule of pitcht threed to mend the Angle-rod withal, if it chance to breake, a file, a knife, a Pouch with many purſes, in which you may place all your implements whatſoeuer ſeuerally.

Laſtly, hee ſhal haue a little fine wanded Pebbe to hang by his ſide, in which he ſhal put the fiſh he catcheth, and a ſmal round Net faſtned vnto a poales end, wherewith he may land a Pike, or any other great fiſh of that kinde whatſoeuer. To haue alſo a little Boate or Cot, if you Angle in great waters, to carry you vp and downe, to the moſt conuenienteſt places for your paſtime, is alſo right neceſſary and fit for an Angler; and thus I haue ſhewed you the ſubſtance of the Anglers inſtruments.

CHAP.

Chap. ii.

Of the Anglers Apparell, and inward qualities.

TOuching the Anglers apparrell (for it is a reſpect as neceſſary as any other whatſoeuer) it would by no meanes be gariſh, light coloured, or ſhining, for whatſoeuer with a glittering hew reflecteth vppon the water, immediately it frighteth the Fiſh, and maketh them flye from his preſence, no hunger being able to tempt them to bite, when their eye is offended: and of all creatures there is none more ſharpe ſighted then Fiſhes are. Let then your apparel be plaine and comely, of a darke colour, as Ruſſet, Tawny, or ſuch like, cloſe to your body, without any new faſhioned ſlaſhes, or hanging ſleeues, waiuing looſe, like ſailes about you, for they are like Blinks which will euer chaſe your Game from you: let it for your owne health and eaſe ſake, be warme and well lined, that neyther the coldneſſe of the ayre, nor the moiſtneſſe of the water may offend you: keep your head and feet dry, for from the offence of them ſpringeth Agues, and worſe infirmities. Anglers apparell.

Now for the inward qualities of the minde, albe ſome Writers reduce them into twelue heads, which indeed whoſoeuer inioyeth cannot chuſe but be very compleat in much perfection, yet I muſt draw them into many moe braunches. The firſt, and moſt eſpecial whereof, is, that a skilfull Angler ought to bee a generall Scholer, and ſeene in all the Liberal Sciences, as a Gramarian, to know how eyther to Write or Diſcourſe of his Art in true and fitting termes, eyther without affectation or rudenes. He ſhould haue ſweetnes of ſpeech, Anglers vertues.

to

to perſwade and intice other to delight in an Exerciſe ſo much Laudable. He ſhould haue ſtrength of arguments to defend and maintayne his profeſſion, againſt Enuy or ſlaunder. Hee ſhould haue knowledge in the Sunne, Moone, and Starres, that by their Aſpects hee may gueſſe the ſeaſonableneſſe, or vnſeaſonableneſſe of the weather, the breeding of ſtormes, and from what coaſtes the Windes are euer deliuered. Hee ſhould be a good knower of Countries, and well vſed to high wayes, that by taking the readieſt pathes to euery Lake, Brooke, or Riuer, his iournies may be more certayne and leſſe wearifome. He ſhould haue knowledge in proportions of all ſorts, whether Circular, Square, or Dimetrical, that when he ſhal be queſtioned of his diurnal Progreſſes, hee may giue a Geographical diſcription of the Angles and Channels of Riuers, how they fal from their heads, and what compaſſes they fetch in their ſeueral windings. He muſt alſo haue the perfect Art of numbring, that in the ſounding of Lakes or Riuers, he may know how many foot or inches each ſeuerally contayneth, and by adding, ſubtracting, or multiplying the ſame, he may yeeld the reaſon of euery Riuers ſwift or ſlow Current. He would not be vnskilful in Muſicke, that whenſoeuer eyther melancholy, heauineſſe of his thought, or the perturbations of his owne fancies ſtirreth vp ſadneſſe in him, he may remoue the ſame with ſome godly Hymne or Antheme, of which *Dauid* giues him ample examples.

He muſt be of a wel ſetled and conſtant beliefe, to inioy the benefit of his Expectation, for then to Diſpayre, it were better neuer to put in practiſe: And he muſt euer thinke where the waters are pleaſant and any thing likely, that there the Creator of all good things hath

hath ſtored vp much of his plenty: and though your ſatisfaction bee not as ready, as your wiſhes, yet you muſt hope ſtill, that with perſeuerance you ſhal reape the fulneſſe of your Haruest with contentment: Then hee muſt be ful of loue, both to his pleaſure and to his Neighbour; To his pleaſure, which otherwiſe would be irkeſome and tedious, and to his neighbour that he neither giue offence in any particular, nor bee guilty of any general deſtruction: Then hee muſt be exceeding patient, and neither vexe nor excruciate himſelfe with loſſes or miſchances, as in looſing the pray when it is almoſt in the hand, or by breaking his Tooles by ignorance or negligence, but with a pleaſed ſufferance amend errors, and thinke miſchances inſtructions to better carefulnes.

He muſt then be ful of humble thoughts, not diſdayning when occaſion commands to kneele, lye downe, or wet his feet or fingers, as oft as there is any aduantage giuen thereby, vnto the gaining the end of his labour. Then he muſt be ſtrong and valiant, neither to be amazed with ſtormes, nor affrighted with Thunder, but to hold them according to their naturall cauſes, and the pleaſure of the Higheſt: neyther muſt he, like the Foxe which prayeth vpon Lambes, imploy all his labour againſt the ſmaller Frie, but like the Lyon that ſeazeth Elephants, thinke the greateſt Eiſh which ſwimmeth, a reward little enough for the paines which he endureth. Then muſt he be liberal, and not working only for his owne belly, as if it could neuer be ſatisfied; but he muſt with much cheerefulneſſe beſtow the fruites of his skill amongſt his honeſt neighbours, who being partners of his gaine, wil doubly renowne his tryumph, and that is euer a pleaſing reward to vertue.

Then

Then muſt he be prudent, that apprehending the Reaſons why the Fiſh will not bite, and all other caſuall impediments which hinder his ſport, and knowing the Remedies for the ſame, hee may direct his Labours to be without troubleſomneſſe: Then hee muſt haue a moderate contentation of minde, to be ſatisfied with indifferent things, and not out of an auaricious greedineſſe thinke euery thing too little, be it neuer ſo abundant: Then muſt he be of a thankefull nature, praiſing the Author of all goodneſſe, and ſhewing a large gratefulneſſe for the leaſt ſatisfaction: Then muſt he be of a perfect memory, quicke, and prompt to call into his minde all the needfull things which are any way in his Exercise to be imployed, leaſt by omiſſion or by forgetfulneſſe of any, he fruſtate his hopes, and make his Labour effectleſſe. Laſtly, hee muſt be of a ſtrong conſtitution of body, able to endure much faſting, and not of a gnawing ſtomacke, obſeruing houres, in which if it be vnſatisfied, it troubleth both the minde and body, and looſeth that delight which maketh the paſtime onely pleaſing.

Cautions. Thus hauing ſhewed the inward Vertues and qualities which ſhould alwayes accompany a perfect Angler, it is very meet now to giue vnto you certaine Cautions, which being carefully obſerued, you ſhall with more eaſe obtayne the fulneſſe of your deſires. Firſt therefore, when you go to Angle, you ſhall obſerue that all your Tooles, Lines, or Implements be (as the Sea-man ſayth) yare, fit, and ready, for to haue them vayeld, ill made, or in vnreadineſſe, they are great hindrances vnto your pleaſure. Then looke that your baites bee good, ſweete, fine, and agreeing with the Seaſon, for if they be otherwiſe vnproper in any of their natures, they are vſe-

vſeleſſe, and you had beene better at home then by the Riuer. Then you muſt not Angle in vnſeaſonable times, for the Fiſh not being inclined to bite, it is a ſtrange inticement that can compell them. Then you muſt be carefull neyther by your apparell, motions, or too open ſtanding to giue affright to the Fiſh, for when they are ſcared they flye from you, and you ſeeke ſocicly in an empty Houſe. Then muſt you labour in cleere and vntroubled waters, for when the Brookes are any thing white, muddy, and thicke, eyther through inundations or other trouble, it is impoſſible to get any thing with the Angle: Then to reſpect the temper of the weather, for extreame winde or extreame cold taketh from Fiſh all manner of appetite: So doth likewiſe too violent heate or raine, that is great, heauy, and beating, or any ſtormes, Snowes, Hailes, or bluſtrings, eſpecially, that which commeth from the Eaſt, which of all is the worſt: thoſe which blow from the South are beſt, and thoſe which come from the North or Weſt are indifferent: Many other obſeruations there are, but they ſhall follow in their due places.

Chap. 12.

Of the beſt and worſt Seaſons to Angle in, and their vſes.

BEfore I direct you in the beſt Seaſons, and their contrary, for the generall Art of Angling, I thinke it not amiſſe, a little by the way, to giue you a glaunce or ſpeculation how to order your Body and Art of each ſeuerall water: for the manner of your ſtanding and concealing of your ſelfe, is a materiall and chiefe poynt in this Art.

Know

The Anglers manner of standing.

Know then, that if you Angle in any Pond or standing water, you shal before you fal to your businesse, with your Plumbe, sound the water in diuers places, and where you find it deepest, blackest, and least transparent, there you shall stand to Angle, placing your selfe vnder the banke, and if it be possible, so as your shaddow may be carried from the water: For you must at no time, if you can chuse, let your shaddow lye vppon the water: and although in these deep places your standing open or close, are eyther of them reckoned indifferently, because the waters depth is a sufficient concealement, yet the closer you stand is accounted amongst Anglers most handsome and artificial.

But if you go to Angle at the Riuer, then the best place to cast in your Line, is where it is deepest and clearest, so as you may behold the Sand or Grauell at the bottome: and in these places you shal striue to conceale your selfe as much as is possible, as standing behind Poplars, Oziers, or other Trees, or vnder the couert of some Banke, Rocke, or other ruines at the side of the Riuer: also in couert places, where are many Weeds, rootes of Trees, and other rubbush, is good Angling, but very troublesome, for Fish lying there warme and in safety, wil haue a great resort thereunto, and bite freely, so that the Angler must be carefull in the putting in of his hooke, and very deliberate in striking, least doing any thing rashly, he breake his Line and Hooke, being neuer so little intangled.

It is good also to Angle in Whirle-pooles, for they being like pits within the Riuers, are seldome vnfurnished of the greatest Fishes; also, it is good to Angle at the fals of waters, as vnder Bridges, standing behind the Iawmes and Arches, or at the flood-gates of Mils,

being

being hid with the higher Timbers. And generally where you ſee the Water is deepeſt, cleareſt, and calmeſt, being leaſt troubled with winde or weather, is the fitteſt place to angle in. Other obſeruations there are, but they will follow in more neceſſarie places.

To returne then to our firſt purpoſe. You ſhall know the beſt ſeaſons to Angle in, is from Aprill till the end of October, ſpeaking of the generall vſe of the pleaſures: and the beſt houres alſo in generall account, are from foure in the morning till nine, and from three in the afternoone till after fiue in the Euening, the winde blowing from South, Weſt, or North, and the ayre temperate, inclined to warmeneſſe: but to ſpeake of particular obſeruations of ſeaſons, know, that if the day be darke, cloſe, and lowring, or haue a gentle whiſtling winde playing vpon the water, it is good to Angle in, and the Fiſh will byte with pleaſure: nay, if a fine mizling dew of rayne fall gently, without vicdence, they wil then byte the faſter: alſo after flouds are gone away, and the Riuers are come within their owne bankes, then firſt cleereneſſe recouered, and the water pure, then it is good to Angle. And generally for your Summer Angling chuſe the cooleſt time of the day, for in the heate of the day Fiſh betake themſelues to their reſt, and will neyther byte nor play.

The beſt ſeaſons to Angle in.

But for your Winter Angling, which is from October to Aprill, you ſhall not make any difference of time, if the weather be calme, for all houres of the Sunne are alike, onely the the noone-tide or mid-day is moſt preferred, eſpecially in Ponds, and ſtanding waters. If the the water where you Angle, ebbe or flow, the beſt time of Angling is held to be in the ebbe: yet in ſome places where the tyde is not great, there the flood is preferred.

Laſtly, whenſoeuer you ſee the Trout play or leape aboue the water, and the Pyke ſhut in perſuit of other Fiſhes; it is then a very good time to Angle in, vſing ſuch baite as are then meet for the month and ſeaſon, as ſhall be ſhewed hereafter.

Seaſons ill to Angle in.

Now for thoſe ſeaſons which are naught to Angle in, there is none worſe then in the violent heate of the day, or when the Windes are loudeſt, Raine heauieſt, Snow and Hayle extreameſt: Thunder and Lightning are offenſiue, or any ſharpe ayre which flyeth from the Eaſt: the places where men vſe to waſh Sheepe you ſhall forbeare, for the very ſmell of the wooll will chaſe fiſh from their haunts. Land floods are enemies to Anglers, ſo alſo at the fall of the leafe is the ſhedding of leaues into the water, and many other ſuch like polutions, of which we will ſpeake ſomething more hereafter.

Of Fiſhes haunts.

Therefore, to conclude this Chapter, and to ſhew you as well how to finde your fiſh, as the Art to take it being found, you ſhall know that the Carpe, Eele, and Tench, doe euer haunt muddy places: the firſt, which is the Carpe, lyeth euer in the depth and bottom thereof: the Tench, among the weedes and rootes of Sedges, and the Eele vnder ſtones, blockes, or the roote of Trees.

The Breame, the Chauin, and the Pyke, haunt euer in the cleare and ſandie bottom, the Pyke where you ſee great ſtore of ſmall fry: the Cheauin where the ſtreame runneth ſwifteſt, and the ſhade is greateſt; and the Breame where the water is broadeſt, and the depth giueth greateſt liberty; and generally theſe three ſorts of fiſh delight more in ſtanding waters then in running Riuers, although the ancient Prouerbe is,

Aniens

Ancome Ele, and Witham Pike,
In all England is none like.

which are Riuers in *Lincolne ſhire.* Now the Salmon hath his haunt in the ſwifteſt and broadeſt riuers, whoſe Channels fal down into the Sea: The Trout loueth ſmaller brooks, whoſe current is ſwift, cleare, and gra-uelly, and euer hath his lodging in the deepeſt holes that are therein; and the Pearch hanteth riuers of the ſame nature, only he abideth moſt in the creekes and hollow-neſſes, which are about the bank, and indeed theſe three fiſhes generally, Salmon, Trout, and Pearch, loue cleare ſtreames, being greene with weeds, and the bottomes hard with grauel and pibble.

The Gudgen, the Loach, and the Bulhead, haunt e-uer ſhalloweſt places, and where ſtreames are ſlow, yet tranſparent: The Barbell, Roch, Dace, and Ruffe, haunt the deepe ſhady places of thoſe brookes which are mixt with more ſand then grauell, or where the clay is firme, and not ſlimie, and deſight euer to lye vnder the ſhadowes of trees, brambles or other thinges grow-ing fom the banke.

The Luce or Lucerne, which indeede is but the ouer-growne Pyke, haunteth the broad and large Meares, which are miles in compaſſe, being deepe and ſtill, and euer lodgeth in the bottome thereof amongſt the the rootes and tufts of Sedge, and Bulruſhes, being qui-et and leaſt troubled. The Humber haunts the clayie Riuers of hye Countries, where the ſoyle is rich and full of Marle, or in Lakes or Ponds of the ſame nature. The Shade and Tweat, haunt thoſe waters which are brackiſh, deepe, and accuſtomed to ebbe and flow,

and where they haunt, there commonly also is found both the Mullet and the Suant, all which loue to lodge close and flat at the bottome of the water, so it be more Ooze then grauel.

Obiection. But heere now me thinkes, I heare the curious reprehend me, saying, that if these Rules should be infalliible, that then no Riuer or Pond could contayne aboue three sorts of Fish only, when daily Experience sheweth vs, that some Riuers haue ten, some twenty, and some thirty, as the *Trent*: For example, whose auncient name in the French is *Trianta*, in Latine *Trigenta*, and in English thirty, deriued from this ground, because there standeth vppon her thirty Castles, thirty Market Townes, and are in her thirty seuerall sorts of fishes.

Answere. To which I thus answere, that forasmuch as into most Riuers falleth many seuerall Waters, and many soiles, according vnto the nature of those Countries, through which the Channels runne, that therefore euery alteration of soile may alter the breed of Frye, and many seueral kindes may be in one Streame, so that the Angler in the choise of his pastime in such places, must eyther haue a perfect knowledge how the soiles doe alter (which he may commonly know by the Bankes,) or else relie vppon his Experience, which wil be the best Tutor to direct him vnto the haunts of seuerall fishes, but for ponds or standing waters which are of one earth, there you shal surely find them best prosper, which are before Rehearsed.

CHAP.

Chap. 13.

Of Baites in generall, and of euery particular kinde: their Seasons, Vse, and Preseruations.

SInce I haue thus far orderly paſſed ouer the outward and inſtrumental neceſſaries appertaining to this modeſt Recreation, ſhewing the ſeueral tooles and implements which are to be imployed therein, and hath alſo ſhewed the inward and mental knowledge which ſhould be harboured in his Breaſt that wil be an Angler: I will now proceede to ſpeake of the Baites and inticements, which are the agents and effecters of our deſires in this paſtime, without which all other imployments are vaine and vſeleſſe: for what doth it auaile to haue all other things in perfection, when this, which is the ſtrength and life of the reſt, is eyther imperfect or defectiue.

To ſpeake then generally of Baites, they are diuided into three kinds, which are, Liue baites, Dead-baites, & Baites liuing but in apparance onely. Your Liue baits are wormes of all kindes, eſpecially the Red-worme, the Maggot, the Bobbe, the Dor, browne Flyes, Frogs, Graſhoppers, Horners, Waſpes, Bees, Snailes, ſmal Roches, Bleakes, Goodgins or Loches. Your dead baites are paſtes of all makings, young brood of Waſps dried or vndried, the clotterd blood of Sheep, Cheeſe, Bramble-berries, Corne, Seedes, Cherries, and ſuch like. And your Baites which ſeeme to Liue, yet are Dead, are Flyes artificially made of all ſorts and ſhapes, made of ſilke and Feathers about your hookes, which wil ſerue for euery ſeueral Seaſon through the

yeere, and being by your line moued vpon the water, ſeeme to be liue Flyes, which the fiſh with great greedineſſe will catch vp and deuoure.

Seaſons. Now for the ſeaſons, in which theſe baites are moſt profitable, you ſhall vnderſtand that the red-worme will ſerue for ſmall fiſh all the yeere long: the Maggot is good in Iuly, the Bobbe and Dore in May, the browne Flyes in Iune, Frogges in March, Graſhoppers in September, Hornets in Iuly, Waſpes and Bees in Iuly, Snayles in Auguſt. For the Roche, Bleake, or Gudgin, they ſerue the Pyke at any ſeaſon: all Paſts are good in May, Iune, and Iuly: dryed Waſpes in May: Sheepes-bloud and Cheeſe in Aprill: for Bramble berries, Corne and Seedes, they are good at the fall of the leafe.

Of Flyes. Laſtly for your dead Flyes, which are moſt proper for the Trout or Grayling, you ſhall know that the Dun fly is good in March, being the leſſer, but the greater Dun-fly will ſerue the latter end of February: the Stone flye is good in Aprill, the Red flye, and Yellow flye in May, the Blacke flye, the darke Yellow flye, and the Moriſh flye in Iune, the Tawny flye part in May, and part of Iune, the Waſpe-flye, and the ſhell flye in Iuly, and the clowdie darke fly in Auguſt.

The making of Flyes. Now for the making of theſe flyes the cloudy darke flye is made of black wooll, clipt from between a ſheeps eares, and whipt about with blacke ſilke, his wings of the vnder maile of the Mallard, & his head made blacke and ſutable, fixed vpon a fine peece of Cork, and folded ſo cunningly about the hooke, that nothing may be perceiued but the poynt and bearde onely. The ſhell-flye is made of fine greene floxe, and the wings of the winges of a Pew-glead: the Waſpe-flye is

is made of blacke wooll, lapt about with yellow silke, and the wings of the downe of a Buzzard: the Tawny flye is made of tawny wooll, and the wings set one contrary to another, and made of the white downe of a Widgen: the Morish flye is made of fine flockes, shorne from a freese-gray russet, and the wings of a Drake: the bright yellow flye is made of yellow wooll, and his wings of a red Cockes yellow mayne: the sad yellow flye is made of blacke wooll, with a twisted yellow silke, like a list, whipt downe on either side, and the wings of the wings of a Buzzard, set on with blacke threed: the blacke flye is made of blacke wooll, and lapt about with the herle of the Peacocks taile, his wings with the browne feathers of the Mallard, and some of his blew feathers on his head: the red flye is made of red wooll, lapt about with blacke silke, and the wings of the maile of a Mallard, with some of the red feathers of a Capon, the stone flye is made is made of blacke wooll made yellow vnder the wings, and vnder the taile with silke, and the wings, of Drakes downe: the greater dun-flye is made of blacke wooll, and his wings of the dunne feathers of a Drakes tayle, the lesser dunne-flye is made of dunne wooll, and his wings of the maile of a Partridge.

Now for the shapes and proportions of these flyes, it is impossible to discribe them without painting, therefore you shall take of these seuerall flyes aliue, and laying them before you, try how neere your Art can come vnto nature by an equall shape and mixture of colours; & when you haue made them, you may keepe them in close boxes vncrushed, and they will serue you many yeeres.

Now for the preseruation and keeping of your quick

Preſeruation of Baites.

baites (for longer then they are neate and ſweet they are not good:) you ſhal vnderſtand, that they muſt not bee kept altogether, but euery kinde ſeuerall by it ſelfe, and nouriſhed with ſuch corrorts as it delighteth in, when it is at liberty, or with ſuch things as they breed in or vppon when they are firſt taken. And firſt for the Red worme: when you take them, you ſhall put them in a bagge of red cloath, and chopping a handful of Fennel, mixe it with halfe ſo much freſh mould beeing blacke and fertile, and they wil both line and ſcower therein: There be ſome Anglers which put wet Moſſe, both vnder and aboue them: Others there be which put Parſly or ſweet Marioram vnto them, but the former way is the beſt, ſo you obſerue euery night to renew their Earth, or once in two dayes to refreſh them with a little new Oxe dung, & thus you may keep them two moneths without imperfection: for the great white Maggots, you ſhal mixe with them ſheeps tallow, or little bits of a beaſts Liuer, the beſt way to ſcoure them, is to put them into a bagge of blanketting, with ſand, and hang them where they may haue the ayre of the fire, or other warmth, for the ſpace of an houre or two. For Frogs and Graſhoppers, you ſhal keep them in wet moſſe, and long graſſe, moiſtened euery night with Water, and when you angle with them you ſhal cut off their legges by the knees, and the Graſhoppers wings neere vnto the body; for other wormes, as the Bobbe, Cadis-worme, Canker, and ſuch like, you ſhall keep them with the ſame things you find them vppon: and for all liue Flies you ſhal vſe them as you take them, only the Waſpe, the Hornet, and Bumble Bee, which is without ſting, you ſhall firſt drye them a little in a warme ouen after the bread is drawne, and then dippe

all

all their heads into ſheepes blood, and then dry them againe, and ſo keep them in a cloſe boxe, and they wil continue two or three moneths in all good perfection.

Of making paſtes.

Now laſtly, to ſpeake of your made baites, which are Paſtes, the moſt of them wil laſt the whole yeare, and as they be diuers, ſo I wil ſhew you how to compound euery one of them in his true and perfect nature. Firſt, to make Paſtes that ſhal laſt the longeſt, you ſhal take Beane-flower, and thoſe parts of the Conies leg which is called the Almond of the Cony: or if it bee of a fat young Whelpe, or a Cat, it is as good: and to theſe put a like quantity of Virgin waxe, and ſheepes ſuet, and then beate them together in a Morter, vntil they bee made one body, then with a little clarified Hony temper it before the fire, and ſo make it vp in round bals, and it wil laſt all the yeare: and the vſe thereof is, when you Angle, to baite your hooke therewith, and not any Fiſh which ſwimmeth in freſh waters, but wil greedily bite thereat.

There is alſo another Paſte which is of equal quality and vſe with this, and wil laſt as long, and that is to take the Kidney-Tallow of a Sheep, and as much young Cheeſe, and beat them in a morter til they be one body, then adde to them as much wheate-flower as wil bring it to an exceeding ſtiffe paſte, then kneade it before the fire, and allay the ſtiffeneſſe with life hony, and ſo make it vp into bals.

The vſe of this Paſte is like the former. Take the blood of a Sheepe, and of Hony like quantity, and beate them together with a lumpe of freſh cheeſe, then with the fine grated crummes of white bread, worke them into a ſtiffe paſte, & ſo role it vp in bals, and when you Angle do not baite your hooke therewith, but now

and

and then caſt little pellets thereof into the Water, and it wil intiſe the Fiſh to reſort vnto you, and to bite with great greedineſſe.

There bee others which take Bread crummes, and beat them in a Morter with ripe Cherries (the ſtones being taken out) vntil it come to a ſtiffe Paſte, and then knead it vp into bals, and vſe it as you do that which was laſt recited: it is moſt approued and very excellent for all ſorts of Fiſh in freſh waters.

Laſtly, if you take the oyle of the *Aſpray*, and *Coculus-India*, and *Aſſerfidia* beaten, and mixt with as much life Hony, and then diſſolue them in the oyle of *Polypody*, and ſo keepe it in a cloſe glaſſe; then when you Angle, annoynte your baite but with this confection, and though the weather be neuer ſo vnſeaſonable, or the Fiſh neuer ſo ill diſpoſed to bite, yet bee ſure you ſhal not looſe your Labour, but take, when all men elſe faile of their purpoſe, for the ſecret hath bin rarely approoued, and hitherto hath bin concealed with great ſecreſie. And thus much for baites and their vſes.

Chap. 14.

Of Angling for euery ſeuerall kind of Fiſh, according to their natures.

NOw to ſhew you how you ſhal Angle moſt properly for euery ſeuerall Fiſh, with true Art, according to the nature of the Fiſh, I thinke it not amiſſe firſt to begin with the Goodgin, Roch, and Dace, which being Fiſhes of eager bit, moſt fooliſh, leaſt afrightful, and ſooneſt deceiued, are the firſt fitteſt preyes for yong Schollars, and ſuch as are but Learners in the Art of Angling, for the eaſineſſe of their gaining wil not onely ſettle an vnreſolued

Of the Goodgin, Roch, and Dace:

vnreſolued minde, but giue vnto ignorance both comfort and incouragement.

If then you wil Angle for any of theſe ſmal Fiſhes in great ſtreames, it ſhal be meet to take a Boat, and finding the places of their haunt, which is commonly in ſandy cleare waters, and where they run ſwifteſt, there Angle for them with your ſmalleſt hookes, wel leaded, and ſmalleſt Lines, wel Corckt. Your hooke would rather dragge then be an inch from the bottome, and your beſt baite is the Red worme, Cod-worme, Maggot, clotted blood of Sheep cut in little bits, or elſe the white Spawne or brood of Waſpes: and euer aſſoon as you ſee the Corke ſtirre, ſuddainly ſtrike, for they wil lye nibling at the baite, and finding the hooke, forſake it. If you Angle for them in ſmal Brooks, you ſhal ſtand vnder Bridges, at the fals of Mils, behind Poplars, or Oziers, or any where, where the ſtreame runneth deep and ſwift: and euer note, that when your bit failes, you remooue your place, and ſeeke out a new ſtanding, and withal forget not, euer when you Angle for any of theſe fiſh, to caſt in ſome of your Paſte before your hooke, for this wil make your ſport much more abundant: and although the Dace, out of his owne nature, biteth high, and neere the top of the water, yet theſe baits and intiſements wil mak him ſtoop, and be taken eaſily.

If you wil Angle for the Carpe, you muſt haue a ſtrong Rod, and a ſtrong Line, of at leaſt ſeauen or nine haires, and eyther mixt with greene or watched ſilke: your Cork muſt be large, long, and ſmooth: your Leads ſmooth and cloſe, and fixt neere the hooke, and the hook of almoſt a three penny compaſſe. He is very dainty to bite but at ſome eſpecial houres, as very early in the morning, or very late at night, and therfore he muſt be very much

Of the Carpe.

much entiſed with Paſt: his beſt bayts are the Moſſe-worme, the redde-worme, or the Menow, for he ſeldome refuſeth them. The Cadis-worme is good for him in *Iune*, and the Maggot, Blacke worme, or Graſhopper, in *Iuly*, *Auguſt*, and *September*. If you make him Paſte of ſoure Ale, white of eggs, and bread-crums, it will very much entiſe him: alſo I would euer with you before you fiſh for the Carpe, to caſt in a handfull of white Bread chippings into the Pond or Riuer, for they will not onely intiſe him to your bayte, but alſo giue you notice if you be neere his haunt, for you ſhall preſently heare him ſmacke aboue the water, and then if you miſſe him, eyther your fortune or skill is not good.

Of the Chub, Cheuin, or Trout.

If you will Angle for the Chub, Cheuin, or Trout, all your Inſtruments muſt be ſtrong and good: your rod darke and diſcoloured, your line ſtrong, but ſmall and ſhort, you hooke of a two penny compaſſe, and if you Angle with a Flye, then, nor Lead, nor Corke, nor Quill, if otherwiſe, then all of a handſome and ſutable proportion.

The beſt ſtanding to take them is in cloſe and concealed places, as behind Trees, Walles, or Arches of Bridges: theyr haunts are in cleere waters which runne vpon Sand or Grauell, and they are in beſt ſeaſon from *March* till *Michaelmas*: if you Angle for them with dead Flyes, without Lead or Corke, I haue ſhewed you in the former Chapter, the ſeuerall flyes for each ſeuerall month; but if you angle for them with other baites, then you muſt haue both Corke and Lead, for he will bite neere the bottome, yet ſometimes you may angle for him with a ſmall Menow hangd at your hooke by the neyther parts, without Corke or Lead,

and

and ſo draw the bayte vpon the the top of the water, and both with it, and with euery flye, ſtrike rather before then after he byteth. If you Angle for him at the ground in *March*, *Aprill*, *May*, and *September*, the Menow is a good bayte, ſo is the ſtone-flye, Cadis-worme, Bobbe, red worme, ditch canker, young Frogges, the worme that breedeth on the Ozier-leafe and the Dock-canker mixt together. In *Iune* Crickets and Dore flye, are good: In *Iuly* the Graſhopper is good, ſo is the humble Bee, dryed Waſpes or dryed Hornets, or any of their young brood in the Combes, in *Auguſt* flying Piſmires are good, ſo is the Colewort-worme, or the Maggot, and in *September* eyther Cherries, Mice before they haue any hayre, or the great Sow-worme.

I now will angle for the Eele, the beſt place is at Weares, Mill-ponds, bridges, hollow bankes, or any ſwift falling water: your Line ſtrong, and not aboue two elles in length, and very heauily plumde, a good round Hooke, but no Corke, becauſe you muſt not ſtrike till the Eele plucke: neyther muſt you by any meanes pull haſtily, but holding your Line ſtiffe, with labour and patience tire him, leaſt that tearing his chaps, you looſe him. The beſt bayte is the red worme, or little peeces of ſheepes guts. Of the Eele.

The Flounder and Sewant are greedy byters, yet very crafty: for they will nibble and ſucke at a bayt a good while before they ſwallow it, and if they perceiue the hooke, they will flye from it: therefore to make them more haſty of the bayte, you muſt euer be mouing your line, and ſeldome let it lye ſtill. They lye moſt commonly in the deepeſt places of the Riuer where the water is ſtilleſt, and runneth with leaſt force: Of the Flounder & Sewant,

alſo

alſo they lye neare vnto the banke, and delight moſt in the ſtreame, which is brackiſh, and mixt with the ſalt water. Your Line muſt be ſtrong, and wel plumbde neere to the hooke; and the beſt baite is the red Worm, and the young brood of Waſpes.

Of the Grayling or Barbell.

The Barbel or Grayling, which ſome cal the Vmber, are very ſubtle and crafty fiſhes: Therefore you muſt be very careful that your baites be ſweet and new, and when you angle for them, do in all things as you doe for the Trout, for they bite aloft in the Summer, and at the bottome in the Winter. Your Lines muſt be extraordinarily ſtrong, and your hookes of a three-penny Compaſſe, for they are fiſhes of waighty bodies, and when then are ſtrooke, muſt haue liberty to play, and tyre themſelues, or elſe they wil indanger the breaking of your Rod, and therfore your Line muſt be of the longeſt ſize.

Of the Breame

The beſt ſeaſon to angle for the Breame, is from the latter end of *Febrnary* til *September*, he is a very luſty ſtrong fiſh, and therefore your tooles muſt be good, the baites in which he moſt delighteth, is in wormes of all ſorts, Butterflies, greene flyes, paſte of bread crummes, or the brood of Waſpes.

Of the Tench.

The Tench is a fiſh that euer loueth the bottome of Riuers, where the Ooſe or mudde is thickeſt; and is moſt fit to be angled for in the height of Summer, for at other ſeaſons he is not apt to bite, and at all times he is very dainty.

The baites in which he delighteth moſt, is paſts that are very ſweet, and the browner the better, eſpecially if it be made with the blood of a ſheep. At the great red worme alſo he will bite, and ſo much the ſooner if you mixe them with this paſte: the Maggot and dryed

waſpe

Waſpe hee will ſeldome refuſe, chiefly being dipt in hony.

The Bleake, Ruffe, and Perch are fiſhes which bite neither hye nor low, but for the moſt part in the midſt of the water, therefore your Line muſt be very lightly plumbde, and farre from the hooke. The baites which moſt intice them, beſides the red-worme, is the houſe-flye in the Summer, and the fat of Bacon in the winter: in *April* they wil bite wel at the Bobbe-worme or Maggot, and in all other ſeaſons they ſeldom refuſe any worme or canker. Your Line would bee ſmall, and well armed from the hooke a handful with ſmall wyer, for the teeth of the Perch wil elſe gnaw it a ſunder. Of the Bleake, Ruffe, and Perch.

The Pike is a fiſh of great ſtrength and waight, in ſo much that you can hardly haue a Line of haire to hold him, therefore your beſt Anglers vſe moſt commonly a Chaulke line, your Angle-rod alſo muſt haue no ſmall top, but be all of one piece and bigneſſe, and the Line made exceeding faſt for ſlipping; Your hooke would be of the ſtrongeſt wyer, white or yellow, and made double, the points turning two contrary wayes, and then armed with ſtrong wyer a foote at leaſt: his beſt baite is a little ſmal Roch, Dace, or Menow, the hook being put in at the taile, and comming foorth vnder the gils, and you muſt ſeldome or neuer let your baite lye ſtil in the water, but draw it vp and down, as though the fiſh did mooue in the water, and fleede from the Pike, for this will make him more eager and haſty to bite: and hauing bit, you muſt be ſure to tire him wel before you take him vp. Of the Pike.

The yellow liue Frogge is alſo an excellent baite for the Pike, for you muſt vnderſtand, that they naturally

rally delight not in any dead or vnmouing food.

Of Snickling the pyke

There bee ſome which take a great deale of delight and pleaſure to Snickel or halter the Pike, which is good when Pikes are broake out of Ponds or Riuers, and come into little ſmal Ditches or Rundels, as is oft to be ſeene in low Countries. The way then to halter them is, firſt to finde the Pike where he lyeth (which in the heat of the day, you may eaſily doe) then take your Chaulke-line, and making a large running nooze thereof, put it gently into the water, about two foot before the noſe of the Pike, then when you feele it touch the ground, cauſe one to goe behind the Pike, and with a poale to ſtirre him, then as he ſhutteth, meet him with your nooze, and ſo with a ſuddaine and quicke ierke throw him vpon the Land. In this ſport you muſt bee very ready, nimble, and quicke ſighted, for if you giue him the leaſt time, he will eſcape you.

Of the Salmon.

Now laſtly, touching the angling for the Salmon, albe he is a fiſh which in truth is vnfit for your Trauaile, both becauſe hee is too huge and cumberſome, as alſo in that he naturally delighteth to lie in the bottomes of great deepe Riuers, and as neere as may be in the bottomes of great deepe Riuers, and as neare as may bee in the middeſt of the Channel, yet for as much as many men eſteeme that beſt which is got with moſt difficult, you ſhall vnderſtand that the baites in which hee moſt delighteth are thoſe which ſerue for the Trout, as paſte or flyes in the Summer, and Red-wormes, Bob-wormes, or Cankers on the water-dockes after *Michaelmas*. And thus much for the *Arte* of *Angling*, and taking of each ſeueral ſort of fiſh which liue in the freſh or brackiſh waters.

CHAP.

Chap. 15.

Of taking Fish without Angles, and first of laying Hookes.

THe laying of Hookes to take fish in the night, is most commonly vsed for the Pike, in great broad Waters or Meares, full of Sedge, Bulrushes, and other weedes, being very deepe, and muddy: Some doe vse to lay them for the Eele also, but you shal vnderstand, that if you lay for the Pike, you must by no meanes let your hooke go to the bottome, but with a floate keep it halfe a foot from the ground, but if you lay for Eeles, then let your Hookes be smaller, and sinke as low as they will.

Now for the manner of laying them, you shall baite the hookes as you did, when you Angled with Menow, Roch, Dace, Goodgen, or Millers-thumbe: and being made fast to strong packe-threed, fasten also that packthreed to a strong cord, which cord if it be three fadome in length, may hold sixteene or twenty hooks. Then fixing two strong stakes into the Earth, fasten the two endes of the bigge cord to the two stakes, and so let it lye from Sunne set vntill Sunne rise, and you shall neuer faile, but some of your Hookes will haue taken: Onely obserue if you lay for Pikes, to lay in the middest of the water, neere vnto the Sedge and Weedes: but if you lay for Eeles, lay very neere the Bankes, so there be no hollow or rotten trees growing thereon.

Now if you would with these layd Hookes take any other sorts of fish, you shall lay such hookes as are fit for them; and before you depart away, cast into the

Water good ſtore of pellets of thoſe paſtes which are proper for the fiſhes you would take: as the paſte which is made of Branne, Sheepes blood, Garlicke, and Lees of Wine, wil take all ſorts of ſmal fiſh: that paſte which is made of ſheepes Liuer, Guts, Hogges blood, Bread crummes, and *Opoponaxe*, wil bring Pearch, Tench, Carpe, or Breame vnto your hookes, and that paſte which is only made of Rue, Pine-apple kernels, Beane-meale and Hony, will bring the Salmon, the Trout, Cheuan, or Barbell, vnto your hookes at all times of the yeare.

Chap. 16.
Of preſeruing Fiſh from all ſorts of Deuourers.

AMongſt all the rauenous Creatures which Deſtroy Fiſh, there is none more greedy then the Otter, whoſe only food being thereon, hourely lyeth in waite to conſume them: Therefore though ſome Fiſher-men vſe to take him with a Weele made with a double tunnel, and called by the name of the Otter-weele, whoſe practiſe is ſo ordinary that euery Fiſherman knowes the vſe of the ſame: Yet for a more ready and eaſie way to deſtroy him, you ſhall as neere as you can finde out his haunt, and the holes that are in the banke, and vnder the Rootes of Trees where hee lodgeth; and then take a great Eele, and ſlitting her backe aboue her nauel, put in three or foure lumps of *Arſnicke*, and then ſtitch vp the skinne againe, and ſo lay the Eele from the nauell downward in the water, and from the nauel vpward out of the water: which when the Otter findes, it is his property to eate vnto the nauell and no further, which

which if he do it is certaine that it is the laſt he wil eate.

Next to the Otter, the Herne is a great deuourer of Fiſh, eſpecially the ſmall Frye, or that which liues in ſhallow places: therefore to deſtroy the Herne, you ſhal take a ſtrong Barbel hooke, and baite it, eyther with a Menow, or a peece of Dogges fleſh: colour your line greene, and lay it in a ſhallow place made faſt to ſome ſtake, where the Herne may wade to the knee to take it, and aſſoone as he hath ſwallowed it, he ſhal no more go from the place.

Now, for as much as this Fowle is a great deſtruction vnto the young Spawne or Frie of Fiſh, it ſhall bee good for the preſeruation thereof, to ſtake down into the bottomes of your Ponds good long Kids or Faggots of bruſh-woods, mixt with the boughes of greene willowes, or oziers, in which the Fiſh caſting their ſpawne, it will be a defence for them, till they be able to flye into better ſafety.

Next to the Herne, the water Rat is a great deſtroyer of young Fiſh, eſpecially Trouts, Creuiſſes, or any that lye in holes in the bankes: the beſt way to deſtroy them is by hunting them with water Dogges, which is a very good ſport, and I haue ſeene twenty kild in an afternoone: but ſome do vſe to take them with Hutches, or dead-fals, ſet in their haunts, but the former way is the better.

Next them the Sea-pye, and Sea Mew, is a great Deuourer or conſumer of Fiſh, and there is no better way to take him then by ſetting Rodds dreſt with water Lime, and ſet ſhoring by the edge of the water, one geſſe or rowe ouer another, in ſuch places as the Water is moſt ſhalloweſt, and vppon ſome tufts of greene Weeds lay a fiſh for a baite vnder the rods, at which

he can no sooner strike but he is presently taken.

Next these the Kings Fisher (which is a small greene Bird) is a great destroyer of Fish, and the way to take him is to make his haunt where he commonly sitteth, which is euer in some Bush next the Riuer: then set a little Cradle of lymde straws about his seat, and they wil quickely take him, for he seldome changeth, but euer sitteth vppon one bough.

Now to conclude, for the Cormorant, the Morchen, the Bald coot, or the Ospray, which destroy all kind of fish whatsoeuer, there is no way better to kill them then by watching their haunts, to shoot at them with a Fowling piece, and in the breeding time of the yeare to destroy their nests.

Chap. 17.

Of the ordering of Ponds, for the nourishment of Fish.

THere is nothing that kil'eth Fish or maketh them to prosper worse then putrified, and stinking Water: neither is there any thing which corrupteth water sooner then Weeds, Sedge, and such filthinesse being suffered to grow therein: Therefore it shall be good once in three yeares for to cleanse your Ponds of all manner of Weeds and filth, which with a small Boat and a sharp hooke you may easily do at the fall of the Leafe, for to cut them in the Spring doeth increase them. Now if your Ponds be much subiect to mudde, as for the most part those in clay Countries are, then it shall bee good once in seauen yeares to draine them, and lade them, and this would be done at the beginning of the Spring; and such Fish as you are willing and meane to preserue,

you ſhall put into ſmaller pits or ſtewes, and the other diſpoſe at your pleaſure: then cauſing the mudde to bee troden with mens feet as you tread Mortar, you ſhall ſee all the Eeles riſe aloft, which when you haue taken alſo, then with Shouels and trough Spades caſt out all the mudde and fikth (which is a ſingular compaſſe for Land) vpon the Banke: then lodde the bottome of the Pond, and the ſides with greene loddes, and fixe them hard into the earth with ſmal ſtakes of Sallow, and theſe ſides wil nouriſh the Fiſh exceedingly.

This done, if your Pond haue not any freſh Spring in it, then you ſhall lade the water backe againe into it, and then draining your ſtewes, take out your ſtore of Fiſh, and put them againe into your Pond, obſerning euer that there be two parts ſpawners, and but a third melters.

Theſe pits and ſmall ſtewes, how ſo euer others write to the contrary, are better for feeding of Fiſh, then breeding: therefore you ſhall euer keep them with freſh water, and placing to one by another, that you may empty them at pleaſure, once in three moneths renew their bankes and bottomes with freſh lods of the fruiteſulleſt graſſe: alſo, you ſhall put into them good ſtore of ſmal Frye of Roch, Dace, Menowe, Loche, and Miller-thumbes, for the bigger Fiſh will feed thereon: alſo the inward Garbadge and blood of Sheepe, calues, Hogges, and ſuch like, which wil fat Fiſh ſuddainely, for you muſt know that as the Fiſh in Riuers haue, by vertue of the current, euer ſomething brought to them to feed on, ſo the Fiſh which is impriſoned in ponds and wants that helpe, muſt either be relieued, or elſe periſh, and there is nothing better to feed them with, then that before ſpoken, or elſe Brewers graines, chippings,

Curds, and any corne whatſoeuer, throwne into the Ponds morning and euening.

Chap. 18.

Of the beſt Water-Lime.

THe beſt water Lime that can be made, and which will moſt ſurely hold within the water, is to take a pound of the ſtrongeſt Bird-lime, and waſh it in nine running waters, vntil there be no hardneſſe in it, and then beat out the water cleane, and drie it: Which done put it into an earthen pot, and adde thereto as much Capons greaſe as wil make it runne, two ſpoonefull of ſtrong Vinegar, a very little Lampe-oyle, and Venice Turpentine, and boile them all gently together vppon a ſoft fire, ſtirring it continually. Then take it from the fire, and let it coole, then at any time when you meane to vſe it, warme it, and then annoynt eyther your Rods, Buſhes, Strawes, or Lines, and no water wil take away the ſtrength.

OF

Of the fighting Cocke.

Chap. 19.

Of the Choyce, Ordering, Breeding, and Dyeting of the fighting-Cocke for Battell.



Since there is no pleasure more Noble, Delightsome, or voide of couzenage and deceite then this pleasure of Cocking is: & since many of the best wisedomes of our Nation haue beene pleased to participate with the delights therein, I thinke it not amisse, as well for the instruction of those which are vnexperienced, as fortifying of them which haue some Knowledge therein, to declare in a few Lines the *Election*, *Breeding*, and *Secrets* of dyeting the fighting Cocke, which hauing bin hitherto concealed and vnwritten of, is (for our pleasure sake) as worthy a generall knowledge as any delight whatsoeuer.

To speake then first of the choise of the fighting-Cocke, you shal vnderstand that the best Carracters you can obserue in him, is the *Shape*, *Colour*, *Courage*, and *sharpe-heele*: for his shape the middle & indifferent size The choyce of the Cocke for Battle.

is euer accounted beſt, becauſe they be euer moſt match able, ſtrong, nimble, and ready for your pleaſure, where as the huge Cocke (which we cal the turne-Pocke) is euer hard to find his equall, beſides he is lubberly, and affording ſmal pleaſure in his battle: and ſo the exceeding little Cocke is as hard to match, and is commonly weak and tedious in his manner of fighting. He would be of a proud and vpright ſhape, with a ſmal head, like vnto a Spar hawke, a quicke large eye, and a ſtrong beake, crookt and bigge at the ſetting on, and in colour ſutable to the plume of his Feathers, as blacke, yellow, or reddiſh. The beame of his legge would bee very ſtrong, and according to his Plume, blew, gray or yellow: his ſpurres long, rough, and ſharpe, a little bending and looking inward.

For his colour, the gray pyle, the yellow pyle, or the red with the blacke breſt, is eſteemed the beſt: the pide is not ſo good, and the white and dunne are the worſt. If he be red about the head, like skarlet, it is a ſigne of luſt, ſtrength, and courage, but if he be pale it is a ſigne of ſickneſſe and faintneſſe.

For his courage, you ſhal obſerue it in his walke, by his treading, and the pride of his going, and in his pen, by his oft crowing. For the ſharpneſſe of his heele, or as Cocke-maiſters call it, the narrow heele, it is onely ſeene in his fighting, for that cocke is ſayd to be ſharpe heeld, or narrow heeld, which euery time he riſeth hitteth, and draweth blood of his aduerſary, guilding (as they tearme it) his ſpurres in blood, and threatning at euery blow an end of the battle.

And theſe cockes are ſurely of great eſtimation, for the beſt cocke-ſtaiſters are of opinion, that a ſharpe heeld cocke, though hee be a little falſe, is much better

ter then the trueſt cocke which hath a dull heele, and hitteth ſeldome, for though the one fight long yet he ſeldome wounds, and the other though he will not indure the vttermoſt hewing, yet hee makes a very ſuddaine and quicke diſpatch of his buſineſſe, for euery blow put his aduerſary in danger.

But that cocke which is both aſſuredly hard, and alſo very ſharpe heeld, he is to be eſteemed, and is of the moſt account aboue all other, and therefore in your generall Election chuſe him which is of a ſtrong ſhape, good colour, true valour, and of a moſt ſharpe and ready heele.

The breeding of the battle Cocke.

Now for the breeding of theſe cockes for the battle, it is much different from thoſe of the dunghill, for they are like Birds of prey, in which the female is euer to be preferred and eſteemed before the Male, and ſo in the breed of theſe Birds, you muſt be ſure that your Henne be right, that is to ſay, ſhe muſt bee of a right plume, as gray, griſſell, ſpeckt, or yellowiſh, blacke or brown is not amiſſe: ſhe muſt be kindly vnto her yong, of large body, well poaked behind for large Egges, and well tufted on the crowne, which ſhewes courage: if ſhee haue weapons ſhe is better, but for her valour it muſt be excellent, for if there be any ſpot of cowardiſe in her, the chickens cannot be true.

And it is a note amongſt the beſt breeders, that the perfect Henne from a Dunghil cocke, wil bring a good chicken, but the beſt cocke from a Dunghill Hen can neuer get a good Bird: and I haue knowne in mine own Experience, that the two famouſeſt cockes that euer fought in theſe dayes, the one called *Noble*, the other *Griſſell*, begot on many ill Hennes very badde cockes, but the moſt famous Henne *Iinkes*, neuer brought

footh

forth ill Bird, how bad ſoeuer her Cocke were.

Hauing then vnto perfect Cockes got perfect Hennes, (for that is the beſt breeding) you ſhall know that the beſt ſeaſon of the yeare to breed in, is from the increaſe of the Moone in *February*, to the increaſe of the Moone in *March*, for one *March* Bird is euer better worth then three at any other ſeaſon. You ſhall placé her Penne in which ſhee ſitteth, to ſtand warme, and to make her bedde of ſoft and ſweete ſtraw, for they be much tenderer then the Dunghils are, neyther ſhall you ſuffer any other Fowle to come in her view where ſhee ſits, for it will moue her to diſpleaſure, and make her to endanger her Egges.

You ſhall alſo obſerue in her ſitting, whether ſhee be buſie to turne her Egges (which is a good ſigne in a Henne) and if ſhee be ſlacke you ſhall helpe her at ſuch times as ſhee riſeth from her neſt, and euer be ſure that when ſhe commeth from her neſt, to haue meate and water ready for her, leaſt being forced to ſeeke her foode, ſhe ſuffer her Egges to coole too much: alſo, you ſhall haue Sand, Grauell, and fine ſifted aſhes in the roome where ſhe ſitteth, in which they may bathe and trimme herſelfe, at her pleaſure.

After one and twenty dayes is the time of their hatching, and if when they are new hatched, ſhe doe neglect to couer and keepe the firſt warme till the reſt be diſcloſed, you ſhall obſerue her, and take thoſe that are firſt opened, and lapping them in warme Wooll, lay them within the ayre of the fire till the reſt be hatcht, and then put them all vnder her, and keping both the Henne and them exceeding warme, for they be ſo tender that the leaſt cold will kill them, and ſuffer neither them

them nor the Henne to goe abroad into the ayre till they be a moneth old: and let them haue ſtore of food, as Oate-meale, Cheeſe parings, Chilter-wheat, and ſuch like, and a large roome to walke in, the floore being boarde for the earth floore is too moyſt, and the plaſter-floare too cold.

After they are a moneth old, you ſhall let them walke in ſome graſſe court, or greene place, where they may haue ſtore of wormes, but by all meanes be ſure there be no ſtinking puddles of water in it, no ſinkes, nor filthy Channells, for it is the greateſt poyſon that can be to Birds of this nature, and breedeth thoſe diſeaſes which are moſt mortall: if euery morning before they goe forth, you perfume them and their roome with Roſemary, or Peny-royal burnt, it is a great preſeruation againſt all thoſe infirmityes, or to choppe Leeke blades amongſt theyr meate is very good alſo.

In this ſort you ſhal nouriſh them till you may diſtinguiſh the Cocke-Chicken from the Henne, and then ſeeing theyr Combes or Wattels but appeare, you ſhall cut them away, and ſo annoynt the ſore with ſweete Butter till it be whole. This will make them haue fine, ſmall, ſlender, and ſmooth heads, whereas to ſuffer the Combe to growe to his bigneſſe, and then cut it away, it will make him haue a gouty thicke head, with great lumpes: neyther is the fluxe of bloud wholeſome, for the leaſt loſſe of bloud in a feathered fowle, is exceeding mortall, and very dangerous.

You ſhall ſuffer your Cocke-Chickens to goe together with their Hennes till they beginne to fight, and pecke one at another, but then you ſhall ſeperate them,

and

and diſpierce them into ſeuerall walkes, and that walke is the beſt for a fighting Cocke which is fartheſt from reſort, as at Winde-milles or Water-milles, Grange-houſes, and ſuch like, where he may liue with his Hens without the offence or company of other Cocks, Lodges in Parkes are alſo good, and ſo are Conie-warrens, onely they are a little too much haunted with vermine, and that is dangerous, let the feeding-place for your Cockes bee vpon ſoft dry ground, or vpon boardes, for to feede vpon paued earth, or on Plaſter floares will make theyr beakes weake, blunt, and not apt to hold faſt. Any white Corne is good foode for a Cocke in his walke, and ſo are toſtes or cruſts of breade ſteeped in drinke, or mans vrine, for it will both ſcowre and coole them inwardly.

If your Chickens beginne to crow (not being ſixe moneths old) cleare and lowde, or at vnſeaſonable times, doe not eſteeme them, for it is an apparant ſigne of cowardiſe and falſhood: for the true Cocke is very long before hee get his voyce, and when hee hath it, hee obſerues his howres with the beſt iudgement. Vnto your fighting Cocke three Hennes are ſufficient, fiue are with the moſt, for they are ſo hotte of nature and will treade ſo much, that they ſoone conſume theyr naturall ſtrength.

A Cocke would not be put to the battell before he be two yeeres old, at which time he is perfect and compleate in euery member, for to ſuffer him to fight when his ſpurres are but warts, you may well know his courage, but neuer his goodneſſe.

You muſt alſo haue an eſpeciall care to the Perch whereon your Cocke ſitteth when hee rouſteth,

for

for if it be too ſmall in the grype, or crooked, or ſo ill placed that he cannot ſit but he muſt ſtradle with his legges, any of theſe faults will make him vneuen heeld, and whatſoeuer he was naturally, yet by this accident, he will neuer be good ſtriker, for the making of the Perch, eyther maketh or marreth the Cocke, therefore to preuent this fault, the beſt way is to haue in your rouſt a row of little Perches, not aboue ſeauen or eight inches in length, and not a foote from the ground, ſo that your Cocke may with eaſe goe vp to them, and being ſet, muſt of force haue his legges ſtand neere together, it is a rule that he which is a cloſe ſitter is euer a narrow ſtriker.

Let the footſtoole of the Perch be round and ſmooth, and about the bigneſſe of a mans arme. Yet for your better knowledge, becauſe words cannot ſo well expreſſe theſe quantities, it ſhall not be amiſſe for you to goe to ſome famous Cocke-maſters houſe and view the Perches which are within his feeding pennes, and according to thoſe proportions frame your owne, for the Perch is the making and ſpoyling of any Cocke whatſoeuer.

Againe, you muſt be carefull, that when your Cocke doth leape from his Perch, that the ground be ſoft whereon he lighteth, for if it be hard or rough, it will make your Cocke grow gouty, and put forth knots vpon his feete.

Now laſtly, for the dyeting and ordering of a Cock for a battell, which is a ſecret, yet neuer divulged, but kept cloſe in the breaſts of ſome few, and for as much as in it onely conſiſteth all the ground and ſubſtance of the pleaſure, the beſt Cocke vndieted, not being able to encounter with the worſt Cocke that is dyeted: The dyeting of Cockes for the battell.

you

Of taking vp Cockes.

you ſhall vnderſtand, that the time to take vp your Cockes is at the latter end of *Auguſt* (for from that time till the latter end of *May*, Cocking is in requeſt) and hauing viewed them well, and ſee that they are ſound, hard feathered, and full ſummed, you ſhall put them into ſeuerall pens, the models whereof you may behold in euery Cocke-maſters or Inne-keepers houſe, hauing a mouing Perch in it, to ſet at which corner of the pen you pleaſe.

Of the Cocke Pen.

This pen would be made of very cloſe boards, well ioyned together all but the forefront, which would be made open, like a grate, one Barre two inches diſtant from another, and before the grate two large Troughes of ſoft wood one for his meate, the other for his water. The doore of the grate would be made to lift vp and downe, of ſuch largeneſſe that you may with eaſe put your Cocke in and out, and dayly cleanſe the pen to keepe it ſweet and wholeſome.

The pen would be at leaſt three foot in hight, and two foote in ſquare euery way, and many of them may bee ioyned in one front, according to the bigneſſe of the roome, in which they are built: and alſo one aboue another, onely with ouer ſhadowing boards, ſo that one Cocke may not ſee another.

Of his dyet.

When your Cocke, as aforeſaid, is put vp into his Pen, you ſhall for three or foure dayes feede him onely with old Manchet, the cruſt pared away, and cut into little ſquare bits, and you ſhall giue him to the quantity of a good handfull at a time, and you ſhall feede him three times in the day, that is to ſay, at Sun riſe, at high noone, and at Sunne ſet. You ſhall euer let him haue before him the fineſt, coldeſt, and ſweeteſt Springe-Water that you can get.

After

After he hath beene thus fedde foure dayes, and his Corne, Wormes, Grauell, and other courſe feeding him in the Morning, take him out of the Pen, and another Cocke alſo, and putting a payre of Hots vpon each of their heeles, which Hots are ſoft bumbaſted roules of Leather, couering their Spurres, ſo that they cannot hurt or bruiſe one another, and ſo ſetting them downe on the greene graſſe, let them fight and buffet one another a good ſpace, as long as in their teaching they doe not wound or draw bloud one vpon another: and this is called the ſparring of Cockes: it heateth and chafeth their bodies, and it breaketh the fat and glut, which is within them, and maketh it apt to cleanſe and come away. Of Sparring of Cockes.

After your Cockes haue ſparred ſufficiently, and that you ſee them pant and grow weary, you ſhall take them vp, and taking off their Hots, you muſt haue deepe ſtraw baskets made for the purpoſe, with ſweete ſofe ſtraw to the middle, and then putting in your Cocke, couer him with ſweete ſtraw vp to the top, and then lay on the lide cloſe, and there let your Cocke ſtoue and ſweate till the Euening.

But yet before you put him into the ſtoue, you ſhall take Butter and Roſemary finely chopt, and white Sugar candy, all mixt thgether, and giue him a lumpe thereof, as much as your thumbe, and then let him ſweate, for the nature of this ſcowring is to bring away his greaſe, and to breed breath and ſtrength. You may in time of neceſſity for want of theſe ſtraw baskets ſtow your Cocke in a Cocke-bagge, by laying ſtraw both vnder and aboue him, but it is not ſo good, becauſe the Ayre hath more power to paſſe thorow it.

After

Of the best dyet-bread.

After foure of the clocke in the Euening, you may take your Cocke out of the stoue, and licking his head and eyes all ouer with your tongue, put him into his Penne, and then taking a good handful of bread, small cut, put it into his trough, and then pissing into the the trough, also giue it him to eate, so as he may take his bread out of the warme vrine, for this will make his scouring worke, and cleanse both his head and body wonderfully.

Now you shall vnderstand, that the bread which you shall giue him at this time, and at all other times during his dyeting shall not be Mauncher, but a speciall bread made for the purpose, in this manner: you shall take of wheat-meale halfe a Pecke, and of fine pate-meale flower as much, and mixing them together kneade them into a stiffe paste, with Ale, the white of a dozen Egges, and halfe a pound of Butter, and hauing wrought the dowe exceeding well, make it into broad thinne cakes, and being three or foure dayes old, and the bitterness of the outside cut away, cut it into little square bits, and giue it the Cocke.

There be some others that in this Bread will mixe Lycoras, Annis-seedes, and other hote Spices, and will also in the Cocke water steepe slices of Lycoras, but it is not commendable, for it is both vnnatural and vnwholesome, and maketh a Cocke so hot at the heart, that when hee comes to the latter end of a battle, hee is suffocated and ouercome with his owne heate: therefore I aduise all men of iudgement, to take that for the best dyet which is most naturall, and least contrary vnto the Fowles ordinary feeding.

But to returne to my former Discourse, after you haue fedde your Cocke thus for all night, you shall the

next

next day let him reſt, and onely giue him his ordinary feedings of Bread and Water, then the next day (which is the ſecond day after his ſparring) you ſhall take him into a fayre euen greene Cloſe, and there ſetting him downe, hauing ſome Dunghill-Cocke in your armes you ſhall ſhew it him and ſo runne from him, and entice him to follow you, and ſo chaſe vp and downe halfe an houre at the leaſt, ſuffering him now and then to haue a ſtroke at the Dunghill-Cocke. And when you ſee that he is well heated and panteth, you ſhall take him vp and beare him into your Cock-houſe, and there firſt giue him this ſcouring: Take of Butter, which hath noe ſalt, halfe a pound, and beate it in a Morter with the leaues of Hearbe of Grace, Iſop, and Roſemary, till the Hearbes cannot be perceiued, and that the Butter is brought to a greene Salue, and of this giue the Cock a roule or two, as bigge as your thumbe, and then ſtoue him in the basket, as is before ſayd, till Euening, and then feed as was formerly declared.

The next day you ſhall let him reſt and feede, and the next day after you ſhall ſparre him againe, and thus euery other day for the firſt fortnight, you ſhall either ſparre or chaſe your Cocke, which are the moſt naturalleſt and kindleſt heates that you can giue him, and after euery heate you ſhall giue him a ſcouring: for this will breake and cleanſe from him all greaſe, glut, and filthineſſe, which lying in his body, makes him puffie, faint, and not able to ſtand out the latter end of a battell.

Hauing fedde your Cocke thus the firſt fortnight, the ſecond fortnight you ſhall alſo feede him in the ſame manner, and with the ſame food, but you ſhall

not ſparre him, or giue him heates aboue twice in a week at the moſt, in ſo much that thrice or foure times in the fortnight will be ſufficient, and each time you ſhall ſtoue and ſcoure him, according to the nature of his heats, that is to ſay, if you heate him much you ſhall ſtoue him long, and giue him of your ſcouring the greater quantity: if yru finde that he is in good breath, and needeth but ſlight heates, then you ſhall ſtoue him the leſſe while, and giue him the leſſe of the ſcowring.

Now to the third fortnight, which maketh vp the ſixe weekes compleat, (being a time ſufficient to prepare a Cocke for his battell) you ſhall feede him as aforeſayd, but you ſhall not ſparre him at all, for feare of making his head tender or ſore, neither giue him any violent exerciſe, but onely twice or thrice in the fortnight, moderately, let him runne and chaſe vp & down, to maintaine his winde, and now and then cuffe a Cock, which you ſhall holde to him in your hands, which done, you ſhall giue him his ſcouring well rould in the pouder of Sugar-Candy, white or browne, but brown is the better, for the Cocke then being come to perfect breath, and hauing no filth in his body, for the ſcouring to worke on, it will worke and cauſe operation vppon the vitall parts, and make the Cocke ſicke, which the Sugar-Candy will preuent, and ſtrengthen nature againſt the medicine.

After the end of ſixe weekes feeding, finding your Cocke in luſt and breath, you may fight him at your pleaſure, obſeruing that he haue at leaſt three dayes reſt before he fight, and well emptied of his meat before you bring him into the Pit.

Now

Now when you bring him into the Pit to fight, you must haue an especiall care to the matching of him, for in that Art consisteth the greatest glory of the Cocke-master, for what auaileth it to feede neuer so well, if in the matching you giue that aduantage which ouerthroweth all your former labours. Therefore in your matching there are two thinges to be considered; that is, the length of Cocks, and the strength of Cocks: for if your aduersary-Cocke be too long, yours shall hardly catch his head, and then he can neither indanger eye or life: and if he be the stronger, he will ouer beare your Cocke, and not suffer him to rise, and strike with any aduantage: therefore for the knowledge of these two rules, though experience be the best Tutor, yet the first, which is length, you shall iudge by your eye, when you gripe the Cocke about the waste, and make him shut out his legs, in which posture you shall see the vtmost of his hight, and so compare them in your iudgment. Now for his strength, which is known by the thicknesse of his body, for that Cocke is euer holde the strongest which is largest in the garth, you shal know it by the measure of his hands, gryping the Cocke about from the points of your great fingers, to the ioynts of your thumbes, and either of these aduantages by no meanes giue to your aduersary; but if you doubt losse in the one, yet be sure to gaine in the other: for the weake long Cocke will rise at more ease, and the short strong Cocke will giue the surer blow, so that because all Cockes are not cast into a mould, there may be a reconciliation of the aduantages, yet by all meanes giue as little as you can. The matching of Cockes.

When your Cocke is equally matcht, you shall thus

Of preparing cockes to the fight.

prepare him to the fight, firſt with a paire of fine Cocke ſheares you ſhall cut all his Maine off, cloſe vnto his necke, euen from his head vnto the ſetting on of his ſhoulders, then you ſhall clip off all the Feathers from his tayle cloſe vnto his Rumpe: where, the more skarlet that you ſee his Rumpe, in the better eſtate of body the Cocke is. Then you ſhall take his wings, and ſpreading them foorth by the length of the firſt feather of his wing, clip the reſt ſlope wiſe with ſharpe points, that in his riſing he may therewith indanger the eyes of his aduerſary: then with a ſharpe knife you ſhal ſcrape ſmooth, and ſharpen his Beake, then ſhal you ſmooth and ſharpen his ſpurs.

The ordring of cockes after battle, and the curing them.

Laſtly, you ſhall ſee that there be no feathers about the crowne of his Head for his Foe to take hold on, and then with your ſpittle moiſtning his head all ouer, turne him into the Pit to prooue his Fortune: When the battle is ended the firſt thing you do, you ſhall ſearch his wounds, and as many as you can finde, you ſhall with your mouth ſucke the blood out of them, then waſh them very wel with warme Vrine, to keep them from Ranckling, and then preſently giue him a roule or two of your beſt ſcouring, and ſo ſtoue him vp as hote as you can, both with ſweete ſtraw and blankerting in a cloſe Basket for all that night, then in the morning take him foorth, and if his head be much ſweld, you ſhall ſucke his Wounds againe, and bathe them with warme Vrine, then hauing in a fine bagge the powder of the Hearbe *Robert*, well dryed, and finely ſeruſt, pounce all the ſore places therewith, and then giue the cocke a good handfull of Bread to eate out of Warme vrine, and ſo put him into the ſtoue againe, in the ſame manner

manner as before mentioned, and by no meanes let him feele the ayre vntil all the ſwelling be gone, but twice a day ſucke his wounds, dreſſe him, and feede him, as is aforeſayd.

But if hee haue receiued any hurt, or blemiſh in his Eye, then you ſhall take a leafe or two of right ground Iuye, not that which runneth along the ground, and is of the ignorant ſo called, but that which growes in little tufts in the bottome of hedges, and is a little rough leafe, and hauing chewde it very well in your mouth, and ſuckt out the iuyce, ſpit it into the eye of the cock, and it will not onely cure it of any wound, or any blow in the Eye, where the ſight is not pierced, but alſo defend it from the breeding of Filmes, Hawes, Warts, or any ſuch other infirmities, which quite deſtroy the ſight: Obſeruing that you doe not ceaſe to dreſſe the Eye therewith ſo long as you ſhall perceiue any blemiſh therein.

Now if your Cocke haue in his fight veined himſelfe eyther by narrow ſtriking, or other croſſe blow, you ſhall find out the wound, and preſently binde thereunto the fine ſoft doune of a Hare, and it will both ſtaunch it and cure it.

For any other cauſuall infirmity or ſickneſſe which ſhal happen vnto Cockes, looke in the former Booke called *Cheape and Good*, and you ſhall finde them ſet downe at Large, onely I will giue you this one ſmall remembrance, that after you haue put foorth your wounded Cockes to their walkes, and come to viſite them a moneth or two after, if you finde about their heads any ſwelleth bunches, hard, and blackiſh at one end, you ſhal know that in ſuch bunches are vnfound

chores: Therefore presently with your Knife you shall open the same, and crush out the chores with your thumbs, then with your mouth sucke out all the corruption, and then fill the holes full of fresh Butter, and it will cure them. And thus much for the nature of the Cocke, and how to keepe him for his best vse.

The end of the first Booke.

THE ENGLISH HOVSE-VVIFE.

CONTAINING

The inward and outward Vertues which ought to be in a compleate Woman.

As her skill in Phyſicke, Surgery, Cookery, Extraction of Oyles, Banqueting ſtuffe, Ordering of great Feaſts, Preſeruing of all ſorts of Wines, Conceited *Secrets, Diſtillations, Perfumes, ordering of Wooll,* Hempe, Flax, making Cloth, and Dying, the knowledge of Dayries, office of Malting, of Oates, their excellent vſes in a Family, of Brewing, Baking, and all other things belonging to an Houſhold.

A Worke generally approued, and now the fourth time much augmented, purged and made moſt profitable and neceſſary for all men, and the generall good of this Kingdome.

By G. *M.*



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THE ENGLISH

TO THE RIGHT HONOVRABLE AND MOST EXCELLENT Ladie, FRANCES. Counteſſe Dowager of *Exeeter*.

HOwſoeuer (Right Honourable and moſt vertuous Ladie) this Booke may come to your Noble Goodneſſe clothed in an old Name or Garment, yet doubtleſſe (excellent Madam) it is full of many new vertues which will euer admire & ſerue you; and though it can adde nothing to your owne rare and vnparalleld knowledge, yet may it to thoſe Noble good ones (which will endeauour any ſmall ſparke of your imitation) bring ſuch a light, as may make them ſhine with a great deale of charity. I doe not aſſume to my ſelfe (though I am not altogether ignorant in abilitie to indge of theſe things) the full inuention and ſcope of this whole worke: for it is true (great Ladie) that much of it was a Manuſcript which many yeeres agon belonged to an Honourable Counteſſe, one of the greateſt Glories of our Kingdome, and were the opinions of the

greateſt Phyſitions which then liued; which being now approued by one not inferiour to any of that Profeſſion, I was the rather imboldned to ſend it to your bleſſed hand, knowing you to be a Miſtreſſe ſo full of honorable piety and goodnes, that although this imperfit offer may come vnto you weake and diſable, yet your Noble vertue will ſupport it, and make it ſo ſtrong in the world, that I doubt not but it ſhall doe ſeruice to all thoſe which will ſerue you, whileſt my ſelfe and my poore prayers ſhall to my laſt gaſpe labour to attend you.

The true admirer of your
Noble Vertues,

GERVASE MARKHAM.

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The

The approoued Booke, Called the *English Houſ-wife.*

Contayning all the Vertuous knowledges and actions both of minde and body; which ought to be in any compleate Houſwife, of what degree or calling ſoeuer.

Booke 2.

Chap. I.

Of the inward vertues of the minde, which ought to be in euery Houſe-wife. And firſt of her general Knowledges both in Phiſieke and Surgery, with plaine approoued medicines for health of the Houſe-hold, alſo the extraction of excellent Oyles fit for thoſe purpoſes.

HAuing already in a ſummary briefneſſe paſſed through thoſe outward parts of Husbandrye which belong vnto the perfect Husbandman, who is the Father and Maiſter of the Family, and whoſe office and imployments are euer for the moſt part abrod, or remoued from the houſe, as in the field or yard: It is now meete that we deſcend in as orderly a Method as we can, to the office of our Eng-

liſh Houſ-wife, who is the mother and Miſtris of the family, and hath her moſt generall imployments within the houſe; where from the genrall example of her vertues, and the moſt approued skill of her knowledges, thoſe of her family may both learne to ſerue God and ſuſtaine man in that godly and profitable ſort which is required of euery true Chriſtian.

A Houſ-wife muſt be religious.

Firſt then to ſpeake of the inward vertues of her mind; ſhe ought, aboue all things, to be of an vpright and ſincere religion, and in the ſame both zealous and conſtant, giuing by her example, an incitement and ſpurre vnto all her family to perſue the ſame ſteppes, and to vtter forth by the inſtruction of her life, thoſe vertuous fruits of good liuing, which ſhall be pleaſing both to God and his creatures; I doe not meane that herein ſhe ſhould vtter forth that violence of ſpirit which many of our (vainely accounted pure) women doe, drawing a contempt vpon the ordinary Miniſtery, & thinking nothing lawfull but the fantazies of their owne inuentions, vſurping to themſelues a power of preaching & interpreting the holy word, to which only they ought to be but hearers and beleeuers, or at the moſt but modeſt perſwaders, this is not the office either of good Houſ-wife or good woman. But let our Engliſh Houſ-wife be a godly, conſtant, and religious woman, learning from the worthy Preacher and her husband, thoſe good examples which ſhe ſhall with all carefull diligence ſee exercſed amongſt her ſeruants.

In which practiſe of hers, what particular rules are to be obſerued, I leaue her to learne of them who are profeſſed Diuines and haue purpoſely written of this argument; onely thus much will I ſay, which each ones experience will teach him to be true, that the more careſull

full the maſter and miſtris are to bring vp their ſeruants in the dayly exerciſes of Religion toward God, the more faithfull they ſhall find them in all their buſineſſes towards men, and procure Gods fauour the more plentifully on all the houſehold: and therefore a ſmall time morning and euening beſtowed in prayers, and other exerciſes of religion, will proue no loſt time at the weekes end.

Next vnto this ſanctity and holineſſe of life, it is meet that our Engliſh Houſ-wife be a woman of great modeſty and temperance as well inwardly as outwardly; inwardly, as in her behauiour and cariage towards her husband, wherein ſhe ſhall ſhunne all violence of rage, paſſion and humour, coueting leſſe to direct then to be directed, appearing euer vnto him pleaſant, amiable, & delightfull and though occaſion, miſhaps, or the miſgouernement of his will may induce her to contrary thoughts, yet vertuouſly to ſuppreſſe them, and with a mild ſufferance rather to call him home from his error, then with the ſtrength of anger to abate the leaſt ſparke of his euill, calling in her mind that euill and vncomely language is deformed though vttered euen to ſeruants, but moſt monſtrous and vgly when it appeares before the preſence of a husband: outwardly, as in her apparrell and diet, both which ſhe ſhall proportion according to the competency of her husbands eſtate and calling, making her circle rather ſtrait then large, for it is a rule if we extend to the vttermoſt, we take away increaſe, if we goe a hayre breadth beyond, we enter into conſumption: but if we preſerue any part, we build ſtrong forts againſt the aduerſaries of fortune, prouided that ſuch preſeruation be honeſt and conſcionable: for as lauiſh prodigality is brutiſh, ſo miſerable couetuouſneſſe is

Shee muſt be temperate.

Of her Garments.

helliſh. Let therefore the Huſ-wifes garments be comly and ſtrong, made aſwel to preſerue the health, as adorne the perſon, altogether without toyiſh garniſhes, or the gloſſe of light colours, and as far from the vanity of new and fantaſtick faſhions, as neere to the comly imitations of modeſt Matrons: Let her dyet be wholſome and cleanly, prepared at due houres, and Cookt with care and diligence, let it be rather to ſatisfie nature then our affections, and apter to kil hunger then reuiue new appetites, let it proceede more from the prouiſion of her owne yard, then the furniture of the Markets; and let it be rather eſteemed for the familiar acquaintance ſhe hath with it, then for the ſtrangeneſſe and rarity it bringeth from other Countries.

Of her Dyet;

To conclude, our Engliſh Huſ-wife muſt be of chaſt thought, ſtout courage, patient, vntyred, watchful, diligent, witty, pleaſant, conſtant in friendſhip, full of good Neighbour-hood, wiſe in Diſcourſe, but not frequent therein, ſharpe and quicke of ſpeech, but not bitter or talkatiue, ſecret in her affaires, comfortable in her counſels, and generally skilful in the worthy knowledges which doe belong to her Vocation, of all, or moſt whereof I now in the enſuing diſcourſe, intend to ſpeake more largely.

Her generall vertues.

To begin then with one of the moſt principal vertues which doth belong to our Engliſh Houſ-wife; you ſhal vnderſtand, that ſith the preſeruation and care of the family touching their health and ſoundneſſe of body conſiſteth moſt in the diligence: it is meet that ſhe haue a phyſicall kind of knowledge, how to adminiſter many wholeſome receits or medicines for the good of their healths, as wel to preuent the firſt occaſion of ſickneſſe, as to take away the effects and euill of the ſame, when

OF Her vertues in Phyſicke;

it;

it hath made ſeaſure on the body. Indeed we muſt confeſſe that the depth and ſecrets of this moſt excellent Art of Phyſicke, is farre beyond the capacity of the moſt skilfull woman, as lodging onely in the breſt of learned Profeſſors, yet that our Houſe-wife may from them receiue ſome ordinary rules and medicines which may auaile for the benefit of her Family, is (in our common experience) no deregation at all to that worthy Art. Neither doe I intend here to lead her minde with al the Symptomes, accidents, and effects which go before or after euery ſickneſſe, as though I would haue her to aſſume the name of a Practitioner, but only relate vnto her ſome approoued medicines, and old doctrines which haue beene gathered together, by two excellent and famous Phiſitions, and in a Manuſcript giuen to a great worthy Counteſſe of this Land, (for farre bee it from me, to attribute this goodneſſe vnto mine owne knowledge) and deliuered by common and ordinary experience, for the curing of thoſe ordinary ſickeneſſes which daily perturbe the health of men and Women. Dr. *Burket.* Dr. *Bomelius.*

Firſt then to ſpeake of Feuers or Agues, the Houſwife ſhall know thoſe kinds thereof, which are moſt familiar and ordinary, as the *Quotidian* or daily ague, the *Tertian* or euery other day ague, the *Quartan* or euery third dayes ague, the Peſtilent, which keepeth no other in his fits, but is more dangerous and mortall: And laſtly the accidental Feuer which proceedeth from the receite of ſome wound or other, painefull perturbation of the ſpirits. There bee ſundry other Feuers which comming from Conſumptions, and other long continued ſickneſſes, doe altogether ſurpaſſe our Houſwiues capacity. Of Feuers in General.

Of the quotidian.

First then for the *Quotidian* feuer, (whose fits vsually last about twelue houres) you shall take new laid eggs, and opening the crowne you shall put out the white, then fill vp the shell with very good *Aqua vitæ*, and stirre it and the yolke very well together, and then as soone as you feele your cold fit begin to come vpon you, mixe vp the egge, and either labour till you sweate, or else laying great store of cloathes vpon you, put your selfe in a sweat in your bed, and thus do whilst your fits continue, and for your drinke let it be one ly posset ale.

Of the single Tertian.

For a single *Tertian* feuer, or each other dayes ague, take a quart of posset ale, the curde being well drained from the same, and put thereinto a good handfull of *Dandilion*, and then setting it vpon the fire, boyle it till a fourth part be consumed, then as soone as your cold fit beginneth, drinke a good draught thereof, and then either labour till you sweat, or else force your selfe to sweat in your bed, but labour is much the better, prouided that you take not cold after it, and thus do whilst your fits continue, and in all your sicknesse let your drinke bee posset Ale thus boyled with the same hearbe.

Of the accidentall Feuer.

For the accidentall Feuer which commeth by meanes of some dangerous wound receiued, although for the most part it is an ill signe, if it be strong and continuing, yet many times it abateth, and the party recouereth when the wound is well tended and comforted with such soueraigne balmes and hot oyles as are most fit to be applied to the member so grieued or iniured: therefore in this Feuer you must respect the wound from whence the accident doth proceed, and as it recouereth, so you shall see the feuer waste and diminish.

For the *Hettique* feuer, which is also a very dangerous

ſickneſſe, you ſhall take the oyle of Violers, and mixe it with a good quantity of the powder of white *Poppy ſeed* finely tearſt, and therewith annoint the ſmall and raines of the parties backe, euening and morning, and it will not only giue eaſe to the Feuer, but alſo purge and cleanſe away all the dry ſcalings which is ingendred either by this or any other feuer whatſoeuer. Of the Feuer hectick.

For any feuer whatſoeuer, whoſe fit beginneth with a cold. Take a ſpoonefull and a halfe of Dragon water, a ſpoonefull of Roſewater, a ſpoonefull of running water, a ſpoonefull of *Aqua vitæ*, and a ſpoonefull of Vinegar, halfe a ſpoonefull of *Methridate* or leſſe, and beate all theſe well together, and let the party drinke it before his fit beginne. For the quartan or for any Feuer.

It is to be vnderſtood that all feuers of what kind ſoeuer they be, and eſpecially infectious diſeaſes, as the Peſtilence, Plague, and ſuch like, are thought the inflammation of the blood, and moſt ſubiect to drought, ſo that ſhould the party drinke ſome drinke he deſired, neither could his body containe it, nor could the great abundance of drinke do other then weaken his ſtomacke, and bring his body to a certaine deſtruction. Of thirſt in Feuers.

Wherefore, when any man is ſo oppreſſed with deſire of drinke, you ſhall giue him at conuenient times either poſſet ale made with cold herbes, as ſorrell, purſlen, Violet leaues, Lettice, Spinage, and ſuch like, or elſe a Iulip made as hereafter in the peſtilence feuer, or ſome Almond milke: and betwixt thoſe times, becauſe the vſe of theſe drinkes will grow wearyſome and loathſome to the patient, you ſhall ſuffer him to gargil in his mouth good wholeſome beare or ale, which the patient beſt liketh, and hauing gargled it in his mouth, to ſpit it out againe, and then to take more, and thus to do as oft as

and then to take more, and this to doe as oft as he pleaseth, till his mouth be cooled: prouided that by no meanes he suffer any of the drinke to goe downe, and this will much better assuage the heat of his thirst then if he did drinke, and when appetite desireth drinke to goe downe, then let him take either his Iulip, or his Almond milke.

For any ague sore. To make a pultis to cure any ague sore, take elder leaues and seeth them in milke, till they be soft then take them vp and straine them, and then boyle it againe till it be thicke, and so vse it to the sore as occasion shall serue.

For the quartaine Feuer. For the *Quartaine* Feuer or third day ague, which is which is of all feuers the longest lasting, & many times dangerous consumptions, blache soundies and such like mortall sicknesses follow it: you shall take Methridate and spread it vpon a lymon slice, one of a reasonable thicknes, and so as the lymon be couered with the Methridate, then bind it to the pulse of the sicke mans wrist of his arme about an houre before his fit doth beginne, and then let him goe to his bed made warme, and with hot cloathes laid vpon him, let him try if he can force himselfe to sweat which if he doe, then halfe an houre after he hath sweate he shall take hot posset ale brewed with a little Methridate, and drinke a good draught thereof, and rest till his fit be passed ouer: but if he be hard to sweate, then with the To make one swe.te. said posset Ale also you shall mixe a few bruised Anyseeds, and that will bring sweate vpon him: and thus you shall doe euery fit till they beginne to cease, or that sweate come naturally of it owne accorde, which is a true and manifest signe that the sickenesse decreaseth.

For

For the peſtilent Feuer, which is a continuall ſickneſſe full of infection, and mortality, you ſhall cauſe the party firſt to bee let blood, if his ſtrength will beare it: then you ſhall giue him coole Iulyps made of Endiue or Succorie water, the ſirrop of Violets, conſerue of Barberries, and the iuyce of Lymons, well mixed and ſimboliz'd together. Of the peſtilent Feuer.

Alſo you ſhall giue him to drink Almond milke made with the decoction of coole hearbes, as violet leaues, ſtrawberry leaues, french mallowes, purſline, and ſuch like, and if the parties mouth ſhall through the heate of his ſtomacke, or liuer inflame or grow ſore, you ſhall waſh it with the ſirrop of mulberries; and that will not onely heale it, but alſo ſtrengthen his ſtomacke. (If as it is moſt common in this ſickneſſe) the party ſhall grow coſtiue, you ſhall giue him a ſuppoſitary made of hony, boyld to the height of hardneſſe, which you ſhall know by cooling a drop thereof; and ſo if you find it hard, you ſhall then know that the hony is boyled ſufficiently; then put ſalt to it, and ſo put it in water, and worke it into a roule in the manner of a ſuppoſitary, & adminiſter it, and it moſt aſſuredly bringeth no hurt, but eaſe to the party, of what age or ſtrength ſoeuer he be: during his ſickneſſe, you ſhall keepe him from all manner of ſtrong drinkes, or hot ſpices, and then there is no doubt of his recouery.

To preſerue your body from the infection of the plague, you ſhal take a quart of old ale, & after it hath riſen vpon the fire and hath been ſcummed, you ſhall put therinto of *Ariſtolochia longa*, of *Angelica* & of *Cellandine* of each halfe an handfull, & boile them wel therin; then ſtrain the drink through a cleane cloath, & diſſolue therein a dramme of the beſt *Mithridate*, as much *Iuory* finely A preſeruatiue againſt the plague.

finely powdred and fearſt, and ſixe ſpoonful of *Dragon* water, then put it vp in a cloſſe glaſſe, and euery morning faſting take fiue ſpoonful thereof, and after bite and chaw in your mouth the dried root of *Angelica*, or ſmell on a roſe-gay made of the taſſeld end of a ſhippe rope, and they will ſurely preſerue you from infection.

For infection of the plague.

But if you be infected with the plague, and feele the aſſured ſignes thereof, as paine in the head, drought, burning, weakneſſe of ſtomacke and ſuch like: Then you ſhal take a dram of the beſt *Methridate*, and diſſolue it in three or foure ſpooneful of *dragon* water, and immediately drink it off, and then with hot cloathes or bricks made extreame hot, and layd to the ſoales of your feet, after you haue beene wrapt in woollen cloathes, compel your ſelfe to ſweat, which if you do, keep your ſelfe moderately therein till the ſore begin to riſe; then to the ſame apply a liue Pidgeon cut in two parts, or elſe a plaiſter made of the yolke of an Egge, Honey, hearbe of grace chopt exceeding ſmall, and wheate flower, which in very ſhort ſpace will not onely ripen, but alſo breake the ſame without any other inciſion; then after it hath runne a day or two, you ſhall apply a plaiſter of *Mell* vnto it, vntil it be whole.

For the Peſtilence.

Take *Fetherfew*, *Marſh-mallowes*, *Scabious*, and *Mugwort*, of each alike, bruiſe them and mixe them with old ale, and let the ſicke drinke thereof ſixe ſpooneful, and it will expel the corruption.

Another.

Take *Yarrow*, *Tanſie*, *Fetherfew*, of each a handful, and bruiſe them well together, then let the ſicke party make water into the hearbs, then ſtraine them, and giue it the ſicke to drinke.

A preſeruation againſt the Peſtilence.

Take of *Sage*, *Rue*, *Rotten leaues*, or *Elder leaues*, of each an handful, ſtampe them and ſtraine them with a quart of

of white wine, and put thereto a little *Ginger*, and a good spoonefull of the best *Treackle*, and drinke thereof morning and euening.

How to draw a plague botch to any place you will.

Take *Smalledge*, *Mallowes*, *Wormewood*, and *Rue*, stamp them wel together, and fry them in *oyle Oliue*, til they be thicke, plaisterwise apply it to the place where you would haue it rise, and let it lye vntil it breake, then to heale it vp, take the iuyce of *Smallage*, *Heateflower*, & *milke*, and boile them to a pultis, and apply it morning and euening til it be whole.

A Cordiall for any infection at the heart.

Take of *Burrage*, *Langdebeefe*, and *Callamint*, of each a good handful, of *Hartstongue*, *Red mint*, *Violets*, and *Marigolds*, of each halfe a handful, boyle them in white wine, or faire running water, then adde a penny worth of the best *Suffron*, and as much *Sugar*, and boyle them ouer againe wel, then straine it into an earthen pot, and drinke thereof morning and euening, to the quantity of seauen spoonfuls.

Against too violent sweating.

Take *Linseed*, and *Lettice*, and bruise it wel, then apply it to the stomacke, and remoouc it once in foure houres.

For the Head-ach.

For the *Head-ach*, you shal take of *rosewater*, of the iuyce of *Cammomil*, of *womans milke*, of strong *wine venegar*, of each two spooneful, mixe them together wel vpon a chafing-dish of coales: then take of a peece of a dry rose cake and steepe it therein, and as soone as it hath drunke vp the lyquor and is throughly hot, take a couple of found *Nutmegs* grated to powder, and strew them vppon the rose cake, then breaking it into two parts, binde it on each side vppon the temples of the head, so let the party lye downe to rest, and the paine wil in a short space be taken from him.

For the Frenzy.

For *Frenzie* or inflamation of the celles of the braine, you shal cause the iuyce of *Beets* to be with a Syrrindge squirted

squirted vp into the patients nostrils, which will purge and cleanse his head exceedingly, and then giue him to drinke posset ale, in which *Violet* leaues and *Lettice* hath been boyled, and it will sodainely bring him to a very temperate mildnesse, and make the passion of *Frenzie* forsake him.

For the lethargy.

For the *Lethargie* or extreame drowsines, you shall by all violent meanes either by noyse or other disturbances, force perforce keepe the party from sleeping; and whensoeuer he calleth for drink, you shal giue him white wine and *Isop* water of each a little quantity mixt together, and not suffer him to sleepe aboue foure houres in foure & twenty, till he come to his former wakefulnes, which as soone as he haue recouered, you shall then forthwith purge his head with the iuyce of *Beets* squirted vp into his nostrils as is before shewed.

To prouoke sleepe.

But if any of the family be troubled with too much watchfulnesse, so that they cannot by any meanes take rest, then to prouoke the party to sleepe, you shall take of *Saffron* a dramme dryed, and beaten to pouder, and as much *Lettice seed* also dryed, and beaten to pouder, and twice as much white *Poppy seed* beaten also to pouder, and mixe these with womans milke till it be a thick salue, and then binde it to the temples of the head, and it will soone cause the party to sleepe; and let it lye on not aboue foure houres.

For the swimming of the head.

For the swimming or dizzing in the head, you shall take of *Agnus castus*, of *Broome wort*, and of *Camomile* dryed, of each two drammes mixt with the iuyce of *Ivie*, oyle of Roses, and white wine, of each like quantity, till it come to a thicke salue, and then binde it to the temples of the head, and it will in short space take away the griefe.

For

For the *Apoplexie* or palsie, the strong sent or smell of a Foxe is exceeding soueraigne, or to drinke euery morning halfe a pint of the decoction of Lauendar, and to rub the head euery morning and euening exceeding hard with a very cleane course cloath, whereby the humours may be dissolued and dispersed into the outward parts of the body: by all meanes for this infirmity keepe your feet safe from cold or wet, and also the nape of your necke, for from those parts it first getteth the strength of euill and vnauoidable paynes. For the palsie.

For a cough or cold but lately taken, you shall take a spoonfull of *Sugar* finely beaten and searst, and drop into it of the best *Aquauitæ*, vntill all the sugar be wette through, and can receiue no more moysture: Then being ready to lye downe to rest, take and swallow the spoonefull of sugar downe; and so couer you warme in your bed, and it will soone breake and dissolue the cold. For a new cough.

But if the *cough* be more old & inueterate, & more inwardly fixt to the lungs, take of the pouder of *Bettonie*, of the pouder of *Carraway seeds*, of the pouder of *Sherwit* dryed, of the pouder of *Hounds tongue*, and of *Pepper*, finely beaten, of each two drams, and mingling them well with clarified hony make an electuary therof and drink it morning & euening for nine daies together: then take of *Sugar candy* coursly beaten, an ounce of *Licoras* finely peared & trimmed, and cut into very little small slices, as much of *Anniseeds* and *Coriander seeds* halfe an ounce; mixe all these together, and keepe them in a paper in your pocket, and euer in the day time when the cough offendeth you, take as much of this dredge, as you can hold betweene your thumbe and fingers & eate it, and it will giue ease to your griefe: And in the night when the cough taketh you, take of the iuice of *Licoras* For an old cough.

as

as two good Barly cornes, and let it melt in your mouth and it wil giue you eaſe.

For the falling ſicknetie.

Although the falling ſicknes be ſeldome or neuer to be cured, yet if the party which is troubled with the ſame, wil but morning and euening, during the wane of the moone, or when ſhe is in the ſigne *Virgo*, eate the berries of the hearbe *Aſterion*, or beare the hearbs about him next to his bare skin, it is likely he ſhall finde much eaſe and fal very ſeldome, though this medicine be ſomewhat doubtful.

For the falling euill.

For the falling euill take, if it be a man, a female *mole*, if a woman a male *mole*, and take them in *March*, or elſe *April*, when they go to the Bucke: Then dry it in an ouen, and make powder of it whole as you take it out of the earth: then giue the ſick perſon of the powder to drink euening & morning for nine or ten daies together.

OF

An Oyle to helpe hearing.

To take away deafnes, take a gray Eele with a white belly and put her into a ſweet earthen pot quick, & ſtop the pot very cloſe with an earthen couer, or ſome ſuch hard ſubſtance: then digge a deep hole in a horſe dung-hill, and ſet it therein, and couer it with the dung, and ſo let it remaine a fortnight, and then take it out and cleare out the oile which will come of it, and drop it into the imperfect eare, or both, if both be imperfect.

For the Rhum.

To ſtay the flux of the Rhume, take Sage and dry it before the fire, and rub it to powder: Then take bay ſalt and dry it and beate it to powder, and take a Nutmeg and grate it, and mixe them all together, and put them in a long linnen bag, then heate it vpon a tile ſtone, and lay it to the nape of the necke.

For a ſtinking breath.

For a ſtinking breath, take Oake buds when they are new budded out, and diſtil them, then let the party grieued nine mornings, and nine euenings, drinke of it,

then

then forbeare a while, and after take it againe.

To make a vomit for a ſtrong ſtinking breath, you muſt take of *Antimonium* the waight of three Barley cornes, and beate it very ſmall, and mixe it with conſerue of Roſes, and giue the Patient to eate in the morning, then let him take nine dayes together the iuyce of Mints and Sage, then giue him a gentle purgation, and let him vſe the iuice of Mint and Sage longer. This medicine muſt be giuen in the ſpring of the yeare, but if the infirmity come for want of digeſtion in the ſtomacke, then take *Mints*, *Maioram*, and *Worme-wood*, and chop them ſmall and boile them in *Malmſie* till it be thicke, and make a plaiſter of it, and it to the ſtomacke. A vomit for an ill breath:

For the *Tooth ach*, take a handful of *Daſie roots*, and waſh them very cleane, and drie them with a cloath, and then ſtamp them: and when you haue ſtamped them a good while, take the quantity of halfe a nutſhel full of Bay-ſalt, and ſtrew it amongſt the roots, and then when they are very wel beaten, ſtraine them through a cleane cloath: then grate ſome *Cattham Aromaticus*, & mixe it good and ſtiffe with the iuyce of the roots, and when you haue done ſo, put it into a quil and ſnuffe it vp into your noſe, and you ſhall find eaſe. For the Tooth-ache.

Another for the *Tooth-ake*, take ſmal *Sage*, *Rue*, *Smallage*, *Fetherfew*, *Wormewood*, and *Mints*, of each of them halfe a handful, then ſtampe them wel all together putting thereto foure drams of *vinegar*, and one dram of *Bay ſalt*, with a penny-worth of good *Aquavitæ*: ſtir them well together, then put it betweene two linnen clouts of the bigneſſe of your cheeke, temples, and iawe, and quilt it in manner of a courſe imbrodery: then ſet it vpon a chafing-diſh of coales, and as hot as you may abide it, lay it ouer that ſide where the paine is, and lay Another.

you

you downe vpon that ſide, and as it cooles warme it a-gaine, or elſe haue another ready warme to lay on.

A drinke for a pearle in the eye.

To make a drinke to deſtroy any pearle or filme in the eye: take a good handfull of *Marigold plants*, & a handfull of *Bennell*, as much of *May-weed* beate them together, then ſtraine them with a pint of beere, then put it into a pot & ſtop it cloſe that the ſtrength may not goe out; then let the offended party drinke thereof when he is in bed, & lie of that ſide on which the pearle is, & likewiſe drinke of it in the morning next his heart when he is riſen.

For payne in the eies.

For payne in the eies, take *Milke* when it comes new from the Cowe, and hauing ſyled it into a cleane veſſell, couer it with a pewter diſh, and the next morning take off the diſh and you ſhall ſee a dew vpon the ſame, and with that dew waſh the pained eies, & it will eaſe them.

For dimme eyes.

For dimme eyes: take *Wormewood*, beaten with the gall of a Bull, and then ſtrane it and annoynt the eyes therewith, and it will cleare them exceedingly.

For ſore eyes.

For ſore eyes, or blood ſhotten eyes: take the white of an *egge* beaten to oyle, as much *Roſewater*, & as much of the iuyce of *Houſe-leeke*, mixe them well together, then dippe flat pleageants therein, and lay them vppon the ſore eyes, and as they drye, ſo renew them againe, and wet them, and thus doe till the eyes be well.

For watery eyes.

For watery eyes, take the iuice of *Affodill*, *Mirrhe*, and *Saffron*, of each a little, and mixe it with twice ſo much white *wine*, then boyle it ouer the fire, then ſtraine it and waſh the eyes therewith, and it is a preſent helpe.

For a canker.

For a Canker or any ſore mouth: take *Cherule* and beate it to a ſalue with old ale and *Alluim water*, and annoynt the ſore therewith, and it will cure it.

A ſwelled mouth.

For any ſwelling in the mouth: take the iuice of *wormwood*,

wood, *Cammomill*, and *Shirwitt*, and mixe them with hony, and bath the ſwelling therewith, & it will cure it.

For the *Quinſie*, or *Quinacy*, giue the party to drinke the hearbe *Mouſeare* ſteept in ale or beere, and looke where you ſee a ſwine rub himſelfe, and there vpon the ſame place rubbe a ſleight ſtone, and then with it ſleight all the ſwelling, and it will cure it. For the Quinſie.

If you would not be drunke, take the pouder of *Betany* and *Coleworts* mixt together; and eate it euery morning faſting as much as will lie vpon a ſixpence, and it will preſerue a man from drunkenneſſe. Againſt drunkennes.

To quicken a mans wits, ſpirit and memory; let him take *Langdebeefe*, which is gathered in *Iune* or *Iuly*, and beating it in a cleane morter; Let him drinke the iuyce thereof with warme water, and he ſhall finde the benefit. To quicken the wit.

If a man be troubled with the *Kings euill*, let him take the red *docke* and ſeeth it in wine till it be very tender, then ſtraine it, and ſo drinke a good draught thereof, and he ſhall finde great eaſe from the ſame: eſpecially if he doe continue the vſe thereof. For the Kings euill.

Take *Frankinſence*, *Doues dung*, and *Wheate-flower*, of each an ounce, and mixe them well with the white of an egge, then plaſterwiſe apply it where the paine is. Additions to the particular ſickneſſes and firſt of the head and the parts thereof & the lungs.

The oyle of *Lyllyes* if the head be annointed therewith, is good for any payne therein.

Take *Rewe*, and ſteepe it in Vinegar a day and a night, the *Rewe* being firſt well bruiſed, then with the ſame annoynt the head twice or thrice a day. Another.

Take the white of an egge and beate it to oyle, then put to it *Roſewater*, and the pouder of *Alablaſter*, then take flaxe and dippe it therein, and lay it to the temples, and renewe it two or three times a day. For the head ake and to ſtay bleeding at the noſe.

To draw out bones broken in the head.

Take *Agrymonie* and bruiſe it, and plaſterwiſe apply it to the wound, and let the party drinke the iuyce of *Betanie*, and it will expell the bones, and heale the wound.

For the falling of the mould of the head.

Take the leaues of *Agrymonie*, and boile them in hony, till it be thicke like a plaiſter, and then apply it to the wound of the head warme.

For the Squynancy.

Take a table napkin or any linnen cloath, and wet it in cold water, and when you goe to bed apply it to the ſwelling and lie vpright, thus doe three or or foure times in a night till the ſwelling waſte.

For the tooth ake.

Take two or three dock roots, & as many dayſy roots, and boyle them in water till they be ſoft, then take them out of the water, and boyle them well ouer againe in *oyle Oliue*, then ſtraine them through a cleane cloath, and anoynt the pained tooth therewith, and keepe your mouth cloſe, and it will not onely take away the payne, but alſo eaſe any megrem or griefe in the head.

To make teeth white.

Take a ſawcer of ſtrong vinegar, and two ſpoonefulls of the pouder of *Roch allom*, a ſpooneful of white ſalt, and a ſpoonefull of hony, ſeeth all theſe till it be as thinne as water, then put it into a cloſe viol and keepe it, and when occaſion ſerues waſh your teeth therewith, with a rough cloath, and rub them ſoundly, but not to bleed.

To draw teeth without yron.

Take ſome of the greene of the elder tree, or the apples of oake trees, and with either of theſe rub the teeth and gummes and it will looſen them ſo as you may take them out.

For teeth that are yellow.

Take Sage and ſalt, of each alike, and ſtampe them well together, then bake it till it be hard, and make a fine pouder thereof, then therewith rub the teeth euening and morning and it will take away all yellowneſſe.

First

For teeth that are loose.

Firſt let them bloud, then take *Harts horne* or *Iuorie* and red *Pympernell*, and bruiſe them well together, then put it into a linnen cloath and lay it to the teeth, & it will faſten them.

For any venom in the eare.

Take the iuyce of *Lonage* and drop it into the eare, and it will cure any venome, and kill any worme, eare-wigge or other vermine.

For a ſtinking breath which commeth from the ſtomacke.

Take two ounces of comine and beate in a morter to fine pouder, then boile it in wine from a pottell to a quart, then drinke therof morning and euening as hot as you can ſuffer it, or otherwiſe take an ounce of wild time, and being cleane waſhed cut it ſmall and then pouder it, then put to it halfe an ounce of peper in fine pouder, and as much comyne, mixe them all well together, and boile them in a pottell of white wine, till halfe be conſumed, and after meate (but not before) vſe to drinke thereof hot, alſo once in the afternoone and at your going to bed, and it will purge the breath.

for ſtinking no rills.

Take red nettles and burne them to a pouder, then adde as much of the pouder of pepper, and mixe them well together, and ſnuffe thereof vp into the noſe, and thus do diuers times a day.

For a canker in the noſe.

Take old ale, and hauing boyld it on the fire, & clenſ'd it, adde thereto a pretty quantity of lyſe hony and as much allom, then with a ſerrindge or ſuch like waſh the ſores therewith very warme.

A red water for any canker.

Take a gallond of running water, and boile it to a pottell, then put to it a handfull of red ſage, a handfull of Cellandine, a handful of Honyſuckles, a handful of woodbine leaues & flowers, then take a penniworth of graynes made into fine pouder, and boile all very well together, then put to it a quart of the beſt life hony of a yeare old, and a pound of Roch allom, let al boyle

together till it come to a pottell, then ſtraine it and put it into a cloſe veſſell, and therewith dreſſe and annoint the ſores as occaſion ſerues, it will heale any canker or vlcer, and cleanſe any wound; It is beſt to be made at Midſomer.

To cleare the eyes. Take the flowers and rootes of Primroſe cleane waſht in running water, then boile them in faire running water the ſpace of an houre, then put thereto a pretty quantity of white *copperas*, and then ſtraine all through a linnen cloath and ſo let it ſtand a while, and there will an Oyle appeare vpon the water, with that oyle annoynt the lids and the browes of your eies, and the temples of your head, and with the water waſh your eyes, and it is moſt ſoueraigne.

Another for the ſight. Take Fifteene ſeeds of *Gyneper*, and as many *Gromell* ſeeds, fiue branches of *Fenell*, beate them all together, then boyle them in a pint of old ale till three parts be waſted; then ſtraine it into a glaſſe, and drop thereof three drops into each eye at night, and waſh your eyes euery morning for the ſpace of fifteene daies with your owne water, and it will cleare any decayed ſight whatſoeuer.

For ſore eyes. Take red *Snayles*, and ſeeth them in faire water, and then gather the oyle that ariſeth thereof, and therewith annoint your eyes morning and euening.

For ſicke eyes. Take a gallond or two of the dregges of ſtrong ale, & put thereto a handfull or two of *Comyne*, and as much *ſalt*, and then diſtill it in a *Lymbecke*, and the water is moſt pretious to waſh eyes with.

For bleared eyes. Take *Cellandine*, *Rue*, *Chervile*, *Plantaine*, and *anyſe*, of each alike, and as much *fenell*, as of all the reſt, ſtamp them all well together, then let it ſtand two daies and two nights, then ſtraine it very well and annoynt your

your eyes morning and euening therewith.

Take an *egge*, and roſt extreame hard, then take the white being very hot and lapp in it as much white *copperas* as a peaſe and then violently ſtraine it through a fine cloath, then put a good drop thereof into the eye, and it is moſt ſoueraigne. For the pin and webb in the eye.

Take two drams of prepard *Tuſſia*, of *Sandragon* one dram, of *Sugar* a dram, bray them all very well together till they be exceeding ſmall, then take of the pouder & blow a little thereof into the eye, and it is ſoueraigne. A pouder for the pin and webb in the eye.

Take of *Red roſe leaues*, of *Smalladge*, *of Maiden haire*, *Euſaace*, *endiue*, *ſuccory*, *red fenell*, *hill-wort*, and *cellandine*, of each halfe a quarter of a pound, waſh them cleane and lay them in ſteepe in white wine a whole day, then ſtill them in an ordinary ſtill, & the firſt water will be like gold, the ſecond like ſiluer, and the third like balme, any of theſe is moſt pretious for ſore eyes, and hath recouered ſight loſt for the ſpace of Ten yeares, hauing been vſed but foure dayes. A pretious water for the eyes.

Take the leaues of *willow*, and boile them well in oyle and therwith annoint the place where you would haue any haire to grow, whether vpon head or beard. To make haire to grow

Take *Treakle* water and hony, boyle them together, and wet a cloath therein, and lay it where you would haue haire to grow, and it will come ſpeedily. Another.

Take nine or ten egges and roſt them very hard, then put away the yolkes, & bray the whites very ſmall with three or foure ounces of white *Copporas* till it be come to perfect oyntment, then with it annoint the face moring and euening for the ſpace of a weeke and more. For a pimpled or red faucy face.

Take the rynde of *Iſſop*, and boile it or burne it and let the fume or ſmoke goe into the mouth and it it will ſtay any rhume falling from the head. For the rhume

For hoarſenes in the throate.

Take a pint of running water, and three ſpoonefulls of hony and boile them together and skime off the filth, then put thereto on ounce of ſmall *Rayſons*, and ſtraine it well through a cloath, and ſo drinke it morning and euening.

For a dangerous cough.

Take *Aquauitæ* and ſalt, and mixe it with ſtrong old ale and then heate it on the fire, and therewith waſh the ſoales of the feete when you goe to bed.

For the dry cough.

Take of cleane Wheate and of cleane Barly of each a like quantity, and put them into a gallond and a halfe of faire water, and boyle them till they burſt, then ſtraine it into a cleane veſſell, and adde thereto a quarterne of fine *Lycoras* pouder, and two penyworth of *gumme-Arabecke*, then boyle it ouer againe and ſtraine it, and keepe it in a ſweete veſſell, and drinke thereof morning and euening.

For the tiſicke.

Take the beſt wort and let it ſtand till it be yellow, then boyle it and after let it coole, then put to it a little quantity of *barme* and *ſaffron*, and ſo drinke of it euery morning and euening while it laſteth, otherwiſe take *hore-hound*, *violet leaues*, and *Iſop*, of each a good handfull, ſeeth them in water, and put thereto a little *Saffron*, *Lycoras*, and *Sugar-candy*, after they haue boiled a good while, then ſtraine it into an earthen veſſell, and let the ſicke drinke thereof ſixe ſpoonefull at a time morning and euening; or laſtly, take the lunges of a Fox, and lay it in roſe-water, or boyle it in roſe-water, then take it out and dry it in ſome hot place without the ſunne, then then beate it to pouder with *Sugar-candy*, and eate of this pouder morning and euening.

For griefes in the ſtomacke.

To eaſe paine in the ſtomacke, take *Endiue*, *Mints*, of each a like quantity, and ſteepe them in white *Wine* a dayes ſpace, then ſtraining it and adding thereunto a little

little *Cinamon* and *Pepper*, giue it to the ſicke perſon to drinke, and if you adde thereto a little of the pouder of *Horſe-mint* and *Calamint*, it will comfort the ſtomacke exceedingly, and occaſion ſwift and good digeſtion.

For ſpitting of blood, whether it proceede of inward bruiſes, ouerſtraining or ſuch like, you ſhall take ſome pitch, and a little *Sperma Ceti*, and mixe it with old ale and drinke it, and it will ſtay the the flux of blood: but if by meanes of the bruiſe any outward griefe remayne, then you ſhall take the hearbe *Brockellhempe*, and frying it with ſheepes tallow lay it hot to the grieued place, and it will take away the anguiſh. For ſpitting of blood.

To ſtay the fluxe of vomiting take *Worme-wood*, and ſowre bread toaſted of each like quantity, & beat them well in a morter, then ad to them as much of the iuyce of *mints*, and the iuyce of *Plantaine* as well bring it to a thick ſalue: then fry them all together in a fryingpan, & when it is hot lay it plaiſter wiſe to the mouth of the ſtomacke, then let the party drinke a little white wine and *cheruile* water mixt together, and then ſteepe ſower toaſted bread in very ſtrong Vinegar, wrapt it in a fine cloath and let the ſicke party ſmell thereto, and it will ſtay the exceſſe of vomiting, and both comfort and ſtrengthen the ſtomacke. For vomiting.

If you would compell one to vomit, take halfe a ſpoonefull of *Stonecrop*, and mixe it with three ſpoonefull of white wine and giue it to the party to drinke, and it will make him vomit preſently, but do this ſeldome and to ſtrong bodyes, for otherwiſe it is dangerous. To force one to vomite.

For the *Iliaca paſſio*, take of *Polipody* an ounce, and ſtampe it, then boyle it with prunes & violets in *fennell*-water or *Anni-ſeeds*-water, take thereof a good quantity, then ſtrayne it and let the partie euery morning For the Iliaca paſſio.

and euening drinke a good draught thereof.

Additions, to the diſeaſes of the ſtomack.

For the ſtomacke. If the ſtomacke be troubled with winde or other paine, take *Commine* and beate it to pouder, and mixe with it red wine, and drinke it at night when you goe to bed, diuers nights together.

For the Illica paſſio. Take *Brokelime* roots and leaues & waſh them cleane and dry them in the Sunne, ſo dry that you may make pouder thereof, then take of the pouder a good quantity, and the like of *Treakle*, and put them in a cup with a pretty quantity of ſtrong old ale and ſtirre them well together, and drinke thereof firſt and laſt morning and euening for the ſpace of three or foure dayes, and if need doe require, vſe the ſame in the brothes you doe eate, for it is very ſoueraigne.

For paine in the breaſt. Take *Hartſhorne* or *Iuory* beaten to fine pouder, and as much *Cynamon* in pouder, mixe them with Vinegar, and drinke thereof to the quantity of ſeauen or eight ſpoonefuls.

For the Mother. Take the water of *Mouſeare*, and drinke thereof the quantity of an ounce and a halfe or two ounces, twice or thrice a day, or otherwiſe take a little *Nutmeg*, a little *Cinamond*, a little *Cloues*, a little *Mace*, and a very little *Ginger*, and the flowers of *Lauender*, beate all vnto a fine powder, and when the paſſion of the mother commeth, take a chaffingdiſh of good hot coales, and bend the Patient forward, and caſt of the pouder into the Chaffingdiſh, ſo as ſhe may receiue the ſmoake both in at her noſe and mouth, and it is a preſent cure.

Obſtructions of the liuer. Againſt obſtructions in the Liuer, take *Aniſeeds*, *Ameos*, *Burnet*, *Camomile*, and the greater *Centuary*, and boyle them in white wine with a little hony, and drinke it euery morning and it wil cure the obſtructions, and cleanſe the Liuer from all imperfection.

Againſt

Agaynſt the heate and inflammation of the Liuer, take *Endiue* dryed to pouder, and the meale of *Lupin ſeedes*, and mixe it with hony and the iuyce of *Wormewood*, make a cake thereof and eate it, and it wil aſſwage the great heate and inflammation of the Liuer, and take away the pimples and redneſſe of the face which proceedeth from the ſame. Againſt the heat of the Liuer.

To preuent a *Plurifie* a good while before it come, there is no better way then to vſe much the exerciſe of ringing, or to ſtretch your armes vpward, ſo as they may beare the weight of your body, and ſo to ſwing your body vp and downe a good ſpace: but hauing caught a Plurifie and feeling the gripes, ſtitches, and pangs thereof, you ſhal preſently cauſe the party to be let blood, & then take the hearb *Althea* or *Hollyhocke*, and boyle it with *vinegar* and *Linſeede* til it be thicke plaiſter-wiſe, and then ſpread it vpon a peece of *Allom* Leather, and lay it to the ſide that is grieued, and it wil helpe it. For the Plurifie.

To helpe a ſtitch in the ſide or elſe where, take Doues dung, red Roſe leaues and put them into a bag, and quilt it: then throughly heat it vpon a Chaffingdiſh of coales with vinegar in a platter: then lay it vnto the pained place as hot as may be ſuffered, and when it cooleth heat it againe. A playſter for a ſtitch.

For any extraordinary heate or inflammation in the Liuer, take *Barbaries* and boyle them in clarified whay, and drinke them, and they wil cure it. Heate in the Liuer.

If you wil make a Cordial for a Conſumption or any other weaknes: take a quart of running water, a peece of *Mutton* and a peece of *Veale*, and put them with the water into a pot, then take of *Sorrel*, *violet leaues*, *Spinage*, *Endiue*, *Succory*, *Sage*, *Hiſſop*, of each a good quantity; then take *prunes* and *raiſins*, and put them all to the For the Conſumption.

the broth, and ſeeth them from a quart to a pint, then ſtraine the yolke of an egge and a little *Saffron* therein-to, putting in *Sugar*, whole *Mace* and a little white wine, ſo ſeeth them a while together, and let the party drinke it as warme as may be.

To ſtaunch blood. To ſtaunch blood, take the hearb *Shepheards-purſe*, (if it may be gotten) diſtilled at the Apothecaries, and drinke an ounce thereof at a time morning and euening, and it wil ſtay any fluxe of blood natural or vnnatural, but if you cannot get the *diſtilled* water, then boyle a handful of the hearb with *Cinamon*, and a little *Sugar*, in *Claret* wine, and boyle it from a quart to a pint, and drinke it as oft as you pleaſe: alſo if you but rubbe the hearbe betweene your hands, you ſhal ſee it wil ſoone make the blood returne.

For the yellow iaundiſſe. For the *Yellow Iaundiſſe*, take two penyworth of the beſt Engliſh *Saffron*, drye it, and grind it to an exceeding fine pouder, then mixe it with the pap of a rolled apple, and giue it the diſeaſed party to ſwallow down, in the manner of a *Pill*, and doe thus diuers mornings together, and without doubt, it is the moſt preſent cure that can be for the ſame, as hath been often times prooued.

For the yellow iaundiſſe. For the *Yellow Iaundiſſe* take *Pimpernell* and *Chich-weed*, ſtampe them and ſtraine them into poſſet ale, and let the party drink thereof morning and euening.

For a deſperate yellow iaundiſſe. For the *Yellow Iaundiſſe* which is deſperate and almoſt paſt cure: Take ſheepes dung new made, and put it into a cup of Beare or Ale, and cloſe the cup faſt, and let it ſtand ſo al night, and in the morning take a draught of the cleareſt of the drinke, and giue it vnto the ſicke party.

For the *blacke Iaundiſſe* take the hearbe called *Penyryall*,

ryall, and eyther boyle it in white Wine, or drinke the iuyce thereof ſimply by it ſelfe to the quantity of three or foure ſpooneful at a time, and it wil cure the blacke Iaundiſſe. For the blacke Iaundiſſe.

Take of *Hyſſop*, *Parſley*, and *Harts-tongue*, of each a like quantity, and ſeeth them in wort til they be ſoft, then let it ſtand til it be cold, and then drinke thereof firſt and laſt, morning and euening. Additions, To the diſeaſes of the liuer For waſting of the Liuer.

Take *Fenel roots*, and *Parſley roots*, of each a like, waſh them cleane, and pil off the vpper barke, and caſt away the pith within, then mince them ſmal, then put them to three pints of water, and ſet them ouer the fire, then take *figges* and ſhred them ſmal, *Lycoras* and breake it ſmal, and put them to the hearbs, and let al boile very wel, then take *Sorrel* and ſtamp it and put it to the reſt, and let it boile til ſome part be waſted, then take a good quantity of honey and put to it and boile a while, then take it from the fire and clarifie it through a ſtrayner into a glaſſe veſſel, and ſtop it very cloſe, then giue the ſick to drinke thereof morning and euening. A reſtoratiue for the Liuer.

Take the ſtalke of Saint *Mary Garsicke*, and burne it, or lay it vpon a hot tyle ſtone vntil it be very drye, and then beate it into pouder, and rub the ſore therewith til it be whole. To heale a ring worme cõming of the heate from the liuer.

Take *Woolle* in the *Walkmil* that commeth from the cloath and flyeth about like Doune, and beate it into pouder, then take thereof and mixe it with the white of an egge and wheate flower, and ſtampe them together, then lay it on a linnen cloath or Lint and apply it to the bleeding place, and it wil ſtanch it. To ſtaunch blood.

If a man bleed and haue no preſent helpe, if the wound be on the foot, bind him about the ankle, if in the legges bind him about the knee, if it be on the hand, bind For great danger in bleeding.

bind him about the wrist; if it be on the arme bind him about the brawne of the arme, with a good list, and the blood wil presently staunch.

For a stitch. Take good store of *Cynamon* grated, and put it into posset Ale very hot and drink it, and it is a present cure.

A bath for the Dropsie. Take a gallond of running water, and put to it as much salt as wil make the water salt as the Sea water, then boyle it a good while, and bath the Legs therein as hot as may be suffered.

For the dropsy. For the Dropsie, take *Agnus castus*, *Fennel*, *Affodil*, *darke Wal-wort*, *Lupins* and *Wormwood*, of each a handful, and boyle them in a gallon of white Wine, vntil a fourth part be consumed: then strayne it, and drinke it morning and euening halfe a pinte thereof, and it wil cure the Dropsie; but you must be careful that you take not *Daffodil* for *Affodil*.

Paine in the Spleene. For paine in the Spleene, take *Agnus castus*, *Agrimony*, *Aniseeds*, *Centuary* the great, and *Wormwood*, of each a handful, & boile them in a gallon of white wine, then straine it and let the patient drinke diuers mornings together halfe a pint thereof; and at his vsual meales let him neyther drinke Ale, Beere, nor Wine, but such as hath had the hearbe *Tamoriske* steeped in the same, or for want of the hearbe, let him drink out of a cup made of *Tamoriske* wood, and he shal surely find remedy.

For paine in the side. For any pain in the side, take *Mugwort* and red *Sage*, & dry them betweene two tile stones, and then put it in a bag, and lay it to your side as hot as can be indured.

For farnes and short breath. To helpe him that is exceeding fat, pursie, and short breathed: take hony clarified, and bread vnleauened & make toasts of it, and dippe the toasts into the clarified hony, and eate this diuers times with your meate.

Take a lump of yron or steele, and heat it red hot, and quench

quench it in Wine, then giue the wine to the ſicke party to drinke.

Additions, To the diſeaſes of the Spleene.

Take *Fenel ſeeds* and the roots, boile them in water, and after it is cleanſed put to it hony and giue it the party to drinke, then ſeeth the hearbe in oyle and wine together, and playſter wiſe apply it to the ſide.

For the Spleen, For the ſtopping of the Spleene.

Make a playſter of *Worme-wood* boyled in oyle, or make an oyntment of the iuyce of *Worme wood*, of *Vinegar*, *Armoniacke*, *Waxe*, and *Oyle*, mixt and melted together, and annoynt the ſide therewith, eyther in the Sunne, or before the fire.

For the hardnes of the Spleene.

Take the pouder of *Galingal*, and mixe it with the iuyce of *Burrage*, and let the offended party drinke it with ſweet wine.

Diſeaſes of the heart.

Take *Roſemary* and *Sage*, of each an handful, and ſeeth them in white wine or ſtrong Ale, and then let the patient drinke it lukewarme.

For the paſſion of the heart. For heart ſickneſſe.

Take the iuice of *Fenell* mixt with hony, and ſeeth them together til it be hard, and then eate it Euening and Morning, and it wil conſume away the fatneſſe.

For fatnes about the hart.

For the wind *Collicke*, which is a diſeaſe both general and eruel, there be a world of remedies, yet none more approued then this which I wil repeate: you ſhal take a *Nutmeg* ſound and large, and diuide it equally into foure quarters: the firſt morning as ſoone as you riſe eate a quarter thereof; the ſecond morning eate two quarters, and the third eate three quarters, and the fourth morning eate a whole *Nutmegge*, and ſo hauing made your ſtomacke and taſt familiar therewith, eate euery morning whilſt the *Collicke* offendeth you a whole *Nutmeg* dry without any compoſition, and faſt euer an houre at leaſt after it, and you ſhal find a moſt vnſpeakable profit which wil ariſe from the ſame.

For the wind Collicke.

For

The Wind Collicke.

For the winde Colliek, take a good handful of cleane wheat meale as it commeth from the Mil, and two egs, and a little wine-vinegar, and a little *Aquauitæ*, and mingle them altogether cold, and make a cake of it, and bake it on a gridyron with a soft fire, and turne it often and tend it with basting of *Aquavitæ* with a feather; then lay it somewhat higher then the paine is, rather then lower.

For the La ke.

For the *Laske* or extreame scouring of the belly, take the seeds of the Wood rose, or Bryer-rose, beate it to pouded, and mixe a dramme thereof with an ounce of the conserue of Sloes and eate it, and it will in a short space bind and make the belly hard.

For the bloody fluxe.

For the bloody-fluxe, take a quart of Red-wine, and boile therein a handful of *Shepheards purse* til the heard be very soft: then straine it, and adde thereto a quarter of an ounce of *Cynamon*, and as much of dryed Tanners barke taken from the ouze, and both beaten to fine pouder, then giue the party halfe a pint thereof to drinke morning and euening, it being made very warm, and it will cure him.

To stay a laske.

To stay a sore *Laske*, take *Plantaine* water and *Cynamon* finely beaten, and the flowers of *Pomgranats*, and boile them wel together, then take Sugar, and the yolke of an egge, and make a caudle of it, and giue it the grieued party.

For the Fluxe.

For the *Flixe* take a Stags pizzel dryed and grated and giue it in any drinke, either in Beere, Ale, or Wine, and it is most soueraigne for any Flixe whatsoeuer: So is the iawe bones of a Pike, the teeth and all dried and beaten to pouder, and so giuen the party diseased in any drinke whatsoeuer.

To cure the worst bloody Flix that may be, take a quart

quart of red wine, and a ſpooneful of *Commin ſeede*, boile them together vntil halfe be conſumed, then take *Knot-graſſe* and *Shepheards purſe*, and *Plantaine*, and ſtampe them ſeueral, and then ſtraine them and take of the iuyce of each of them a good ſpoonful, and put them to the wine, and ſo ſeeth them againe a little: then drinke it luke-warme, halfe ouer-night, and halfe the next morning: and if it fal out to be in Winter, ſo that you cannot get the hearbs, then take the water of them hearbs diſtil'd, of each 3 ſpoonfuls, and vſe it as before. For the worſt Fluxe.

For extreame coſtiueneſſe, or binding in the body, ſo as a man cannot auoid his excrements, take *Anniſeedes*, *Fennicreet*, *Linſeeds*, and the powder of *Pyonie*: of each halfe an ounce, and boile them in a quart of white wine, and drinke a good draught thereof, and it wil make a man goe to the ſtoole orderly, and at great eaſe. For coſtiuen^s.

For wormes in the belly, either of child or man, take *Aloes Cikatrine*, as much as halfe a hazel Nut, and wrap it in the pap of a roaſted apple, and ſo let the offended party ſwallow it in manner of a pil faſting in the morning, or elſe mixe it with three or foure ſpoonful of Muſkadine, and ſo let the party drinke it, and it is a preſent cure: But if the child be either ſo young, or the man ſo weake with ſickneſſe, that you dare not adminiſter any thing inwardly, then you ſhal diſſolue your *Aloes* in the oyle of *Sauine*, making it ſalue-like thick, then plaiſter-wiſe ſpread it vpon Sheepes Leather, and lay it vpon the nauil and mouth of the ſtomacke of the grieued party, and it wil giue him eaſe; ſo wil alſo vnſet Leekes chopt ſmal and fryde with ſweet butter, and then in a linnen bag apply it hot to the nauil of the grieued party. For wormes.

Take a quart of red wine, and put to it three yolkes of egges, and a peny worth of long pepper and graines, and boyle

Additions, boyle it wel and drinke it as hot as can be ſuffered, or otherwiſe take an ounce of the inner barke of an Oake, and a peny-woorth of long *Pepper*, and boile them in a pint and better of new Milke, and drinke it hot firſt and laſt, morning and euening.

To the diſeaſes of the belly and guts

For the greateſt Laxe.

For the bloudy flixe.

Take an egge and make a little hole in the top, and put out the white, the fil it vp againe with *Aquavitæ*, ſtirring the egge and *Aquavitæ* til it be hard, then let the party eate the egge and it wil cure him, or otherwiſe take a pint of red wine and nine yolkes of egges, and twenty pepper cornes ſmal beaten, let them ſeeth vntil they be thicke, then take it off and giue the diſeaſed party to eate nine ſpoonful morning and euening.

For an eaſie Laske.

Take of *Rue* and *Beets* a like quantity, bruiſe them & take the iuyce, mixe it with clarified hony, and boyle it in red wine, and drinke it warme firſt and laſt morning and euening.

To haue two ſtooles a day and no more.

Take *Mercury*, *Sinkefoile*, and *Mallowes*, and when you make pottage or broth with other hearbes, let theſe hearbs before named, haue moſt ſtrength in the pottage, and eating thereon it wil giue you two ſtooles and no more.

For hardnes of the belly or wombe.

Take two ſpooneful of the iuyce of Iuye Leaues, and drinke it three times a day, and it wil diſſolue the hardneſſe.

Againſt Coſtiuenes.

Take the *barkes* of the rootes of the Elder tree, and ſtampe it, and mixe it with old Ale, and drinke thereof a good harty draught.

For the winde Collicke.

Take the crummes of white bread, and ſteepe it in Milke, with *Allom*, and adde Sugar vnto it and eate it, & it wil open the belly.

For the ſtoping of the wombe.

Take the kirnels of three Peach ſtones, and bruiſe them, ſeauen cornes of caſe pepper, and of ſliced ginger

gen a greater quantity then of the pepper, pound all together grosly and put it into a ſpoonfull of (Sacke which is the beſt) or elſe white wine or ſtrong ale, and drinke it off in a great ſpoone, then faſt two houres after and walke vp and downe if you can, if otherwiſe, keepe your ſelfe warme, and beware of melancholy. It may be an enemy at all times.

Take of *Daſies, comfrey, Polpodi*, of the oake and Auens of each halfe a handful, two roots of *Oſmund*, boile them in ſtrong Ale and hony, and drinke thereof morning, noone, and night, and it will heale any reaſonable rupture. Or otherwiſe take of *Smallage, Comfrey, ſetwell, polypody* that growes on the ground like *fearne, daiſies*, and *morſe*, of each a like, ſtampe them very ſmall, & boyle them well in *Barme*, vntill it be thick like a pultis, and ſo keepe it in a cloſe veſſell, & when you haue occaſion to vſe it, make it as hot as the party can ſuffer it, and lay it to the place grieued, then with a truſſe, truſſe him vp cloſe, & let him be carefull for ſtraining of himſelfe, and in a few dayes it will knit, during which cure giue him to drinke a draught of red wine, and put therein a good quantity of the flower of *fetches* finely boulted ſtirring it well together, and then faſt an houre after. For the Rupture.

For the violent paine of the ſtone, make a poſſet of milke and ſacke, then take off the curd, and put a handfull of *Camomill* flowers into the drinke, then put it into a pewter pot and let it ſtand vpon hot imbers, ſo that it may diſſolue, and then drinke it as occaſion ſhall ſerue: Other for this griefe take the ſtone of an Oxe gall, and dry it in an ouen, then beate it to pouder, and take of it the quantity of a hafill-nut with a draught of good old ale or white wine. For the ſtone. Another.

For the Collicke and ſtone, take hawthorne berries,

The collicke and stone.

the berries of sweete briars, and ashen keyes, and dry them euery one seuerally vntil you make them into pouder, then put a little quantity of euery one of them together, then if you thinke good put to it the pouder of *Licoras* and *Annes seeds*, to the intent that the party may the better take it, then put in a quantity of this pouder in a draught of white wine, and drinke it fasting. Otherwise you may take *Smallage seede, Parsley, Louage, Saxifrage*, and *broome seede*, of each one of them a little quantity, beate them into a pouder, and when you feele a fit of either of the diseases, take of this pouder a spoonfull at a time either in potrage, or else in the broth of a chicken, and so fast two or three houres after.

Another.

A pouder for the collicke and stone.

To make a pouder for the collicke and stone, take *fennell, parsley-seede anniseed*, and *carrawayseeds*, of each the waight of sixe pence, of *grimelseede saxifrage seede*, the roots of *Filapendula*, and *licoras*, of each the waight of twelue-pence, of *gallingall Spikenard*, and *Cinamon*, of each the waight of eight pence, of *senna* the waight of 17. shillings good waight, beate them all to pouder and searce it, which will waigh in all 25. shillings & 6. pence. This pouder is to be giuen in white wine and sugar in the morning fasting, & so to continue fasting two houres after, and to take of it at one time the waight of tenne pence or twelue pence.

Another.

Other Physitians for the stone take a quart of rennish or white wine, and two limons, and pare the vpper rinde thinne, and slice them into the wine, and as much white soape as the waight of a groate, and boyle them to a pint, and put thereto sugar according to your discretion, and so drinke it keeping your selfe warme in your bed, and lying vpon your backe.

For the stone in the reynes, take *Ameos, Camomill, Maiden-*

Maiden-haire, *Sparrow-tongue*, and *Filapendula*, of each a like quantity, dry it in an ouen, and then beate it to pouder, and euery morning drinke halfe a ſpoonefull thereof with a good draught of white wine, and it will helpe. For the ſtone in the reynes.

For the ſtone in the bladder, take a Radiſh roote and ſlit it croſſe twice, then put it into a pint of white wine, and ſtoppe the veſſell exceeeding cloſe: then let it ſtand all one night, and the next morning drinke it off faſting, and thus doe diuers mornings together, & it will helpe. For the ſtone in the bladder.

For the ſtone in the bladder take the kernells of floes and dry them on a tile-ſtone, then beate them to pouder, then take the rootes of *Alexanders*, *parſly*, *pellitory*, and *holihocke*, of euery of their roots a like quantity, and ſeeth them all in white wine, or elſe in the broath of a young chicken: then ſtraine them into a cleane veſſell, and when you drinke of it, put into it halfe a ſpoonefull of the pouder of flow kernels. Alſo if you take the oyle of Scorpion, it is very good to annoint the members, & and the tender part of the belly againſt the bladder. A pouder for the ſtone in the bladder.

To make a bath for the ſtone, take *mallowes*, *holihocke*, and *lilly* roots, and *linſeed*, *pellitory* of the wall, and ſeeth them in the broth of a ſheepes head, and bath the reynes of the backe therewith often times, for it will open the ſtraightnes of the water conduits, that the ſtone may haue iſſue, and aſſwage the paine, and bring out the grauell with the vrine: but yet in more effect, when a plaiſter is made and laid vnto the reines and belly immediately after the bathing. A bath for the ſtone.

To make a water for the ſtone, take a gallond of new milke of a red Cow, and put therein a handfull of *Pellitory* of the wall, and a handfull of wild time, and a handfull of *Saxifrage* & a handfull of *Parſly*, & two or three A water for the ſtone.

radiſh roots ſliced and a quantity of *Philipendula* roots, let them lie in the milke a night, and in the morning put the milke with the hearbs into a ſtill, and diſtill them with a moderate fire of char cole or ſuch like: then when you are to vſe the water, take a draught of reniſh wine or white wine, and put into it fiue ſpoonefull of the diſtilled water, and a little *ſugar* and *nutmeg* ſliced, and then drinke of it, the next day meddle not with it, but the third day doe as you did the firſt day, and ſo euery other day for a weekes ſpace.

Difficulty of Vrine. For the difficulty of vrin, or hardneſſe to make water, take *Smallage*, *Dill*, *Any-ſeeds* and *Burnet*, of each a like quantity, and dry them and beate them to fine pouder, and drinke halfe a ſpooefull thereof with a good draught of white wine.

For hot vrine. If the Vrine be hot and burning, the party ſhall vſe euery morning to drinke a good draught of new milke and ſugar mixt together, and by all meanes to abſtaine from beere that is old, hard, and tart, & from all meates and ſawces which are ſowre and ſharpe.

For the ſtrangullion. For the ſtrangullion, take *Saxifrage*, *Polipody*, of the Oake, the roots of beanes, and a quantity of *Rayſins*, of euery one three handfull or more, and then two gallonds of good wine, or elſe wine lees, and put it into a ſlerpetary and make thereof a good quantity, & giue the ſicke to drinke morning and euening a ſpoonefull at once.

For piſſing in bed. For them that cannot hold their water in the night time, take *Kids* hoofe and dry it and beate it into pouder, and giue it to the patient to drinke, either in beere or ale foure or fiue times.

For the rupture. For the rupture or burſneſſe in men, take *Comfery* and *Fennelſeed*, and beate them together with

yellow

yellow waxe and Deares ſuet vntil it come vnto a ſalue, and then apply it vnto the broken place, and it wil knit it: alſo it ſhal good for the party to take *Comphry* roots, and roſt them in hot imbers as you roſt Wardens, and let the party eate them, for they are very ſoueraine for the rupture, eſpecially beeing eaten in a morning faſting, and by al meanes let him weare a ſtrong truſſe til he be whole.

Additions, To the diſeaſes of the reines & bladder.

Take *Goates* clawes and burne them in a new earthen pot to pouder, then put of the pouder into broth or pottage and eate it therein, or otherwiſe take *Rue*, *Parſley*, and *gromel*, and ſtampe them together and mixe it with wine and drinke it.

For he that can not hold his water.

Take *Agnus caſtus*, and *Caſtoreum* and ſeeth them together in wine and drinke thereof, alſo ſeeth them in vinegar and hot lap it about the priuy parts, and it wil helpe.

For the Gonorea or ſtedding of ſeed.

Take *Malmſey* and Butter, and warme it and waſh the reines of the backe, whereupon you find paine, then take oyle of *roſes* and annoynt the backe therewith.

For weakeneſſe in the backe.

Firſt waſh the reines of the backe with warme white wine, then annoynt al the backe with the ointment called *Perſtuaneto*.

For heat in the Reines. For comforting and ſtrengthning of the backe.

Take a leg of Beefe, a handful of *Fenel* roots, a handful of *parſley* roots, two roots of *comphry*, one pound of *raiſins* of the Sunne, a pound of damaske *prunes*, and a quarter of a pound of *dates*, put al theſe together, and boile them very ſoft with ſixe leaues of *nip*, ſixe leaues of *clary*, twelue leaues of *bittany* of the wood, and a little *harts-tongue*, when they are ſod very ſoft, take them into the ſame broth againe with a quart of ſacke, and a penny-worth of large mace, and of this drinke at your pleaſure.

For the Hemeroides.

For the Hemeroides, which is a troublesome and a sore griefe, take of *Dill*, *Dogge-fennell*, and *Pellitory of Spaine*, of each halfe a handfull, and beate it in a mortar with fiue pts fuet and blacke sope till it come to a salue, and then lay it plasterwise on the sore, and it will ease the griefe eafe.

For the piles of Hemeroids.

For the piles or Hamerods, take halfe a pinte of ale, and a good quantity of pepper, and as much allome as a walnut: boyle all this together till it be as thicke as birdlime or thicker, this done take the iuyce of white violets, and the iuyce of houseleeke, and when it is almost cold, put in the iuice and straine them all together, and with this oyntment annoynt the sore place twice a day. Otherwise for this griefe take lead and grate it small, and lay it vpon the sores: or else take muskles dried and beate to pouder, and lay it on the sores.

For the falling of the fundament.

If a mans fundament fall downe through some cold taken or other cause, let it be forthwith put vp againe: then take the pouder of *Tunne cresses* dried, and strew it gently vpon the fundament, and annoynt the reins of the backe with hony, and then about strew the pouder of *Cummin* and *Calefine* mixt together, and safe will come thereby.

Additions, to the diseases of the priuate parts.

For the Hemeroids.

Take a great handfull of *Arpyes*, and bruise them betweene your hands till they be like a salue, and then lay them vpon a cloth & bind them fast to the fundament.

For the greene sicknesse.

To helpe the greene sicknesse, take a pottle of white wine and a handfull of *Rosemary*, a handfull of *wormwood*, an ounce of *cardus benedictus* seed, a dramme of *Cloues*: all these must be put into the white wine in a iugge, and couered very close, and let it steepe a day and a night before the party drinke of it, then let her drinke of it euery morning and two houres before supper:

and

and to take it for a fortnight, and let her ſtirre as much as ſhe can, the more the better, and as earely as ſhe can Otherwiſe for this ſickneſſe take *Iſop*, *Fennell*, and *Ie-ny-royall*, of theſe three one good handfull, take two ounces of *Currants*, ſeeth theſe in a pint of faire water to the halfe, then ſtraine the hearbs from the liquor, and put thereto two ounces of fine ſugar, & two ſpoone-fulls of white wine vinegar, let the party drinke euery morning foure ſpoonefulls thereof and walke vpon it.

To increaſe a womans milke.

To increaſe a womans milke, you ſhall boyle in ſtrong poſſet-ale good ſtore of *Colworts*, and cauſe her to drink euery meale of the ſame, alſo if ſhe vſe to eate boyled *Colworts* with her meate, it will wonderfully increaſe her milke alſo.

To dry vp milke.

To dry vp womans milke, take red ſage, and hauing ſtampt it and ſtrayned the iuyce from the ſame, adde thereunto as much wine vinegar, and ſtirre them well together, then warming it on a flat diſh ouer a few coales ſteepe therein a ſheete of browne paper, then making a hole in the midſt thereof for the nipple of the breaſt to goe through, couer all the breaſt ouer with the paper, and remoue it as occaſion ſhall ſerue, but bevery carefull it be laid very hot to. Some are of opinion, that for a woman to milke to her breaſts vpon the earth will cauſe her milke to dry, but I referre it to triall.

A pukus for ſore breaſts in women.

To helpe womens ſore breaſts, when they are ſwelled or elſe inflamed: Take violet leaues and cut them ſmall, and ſeeth them in milke or running water with wheate bran, or wheate bread crummes: then lay it to the ſore as hot as the party can indure it.

For eaſe in child bearing.

If a woman haue a ſtrong and hard labour: Take foure ſpoonefull of another womans milke, and giue

it the woman to drinke in her Labour, and ſhe ſhall be deliuered preſently.

Child dead in the wombe.

If a woman by miſchance haue her child dead within her, ſhe ſhal take *vitander*, *Felwort*, and *Penyroyall*, and ſtampe them, and take of each a ſpoonful of the iuyce, and mixe it with old wine and giue it her to drinke, and ſhe ſhal ſoone be deliuered without danger.

Aptneſſe to conceiue.

To make a woman to conceiue, let her either drinke *Mugwort* ſteeped in wine, or elſe the pouder thereof mixed with wine, as ſhall beſt pleaſe her taſt.

Take the pouder of *Corrall* finely ground and eate it in a reare egge, and it will ſtay the flux.

Additions,

To womens infirmities,

Againſt womens Termes make a peſſary of the iuyce of *Mugwort*, or the water that it is ſodden in and apply it, but if it be for the fluxe of the flowers, take the iuyce of *plantaine* and drinke it in red wine.

To ceſſe womens flowers.

Againſt the flowers.

For the matrix.

Take a *Fomentation* made of the water wherein the Leaues and flowers of *Tuſan* is ſodden to drinke vp the ſuperfluities of the Matrixe, it cleanſeth the entrance, but this hearbe would be gathered in harueſt; if a woman haue paine in the Matrixe, ſet on the fire water that *Amomum* hath bin ſodden in, and of the decoction make a peſſary and it wil giue eaſe.

A generall purg for a woman in child bed.

Take two or three egges, and they muſt be neyther roſt nor raw, but betweene both, and then take butter that ſalt neuer came in, and put it into the egges and ſup them off, and eate a peece of browne bread to them and drinke a draught of ſmal Ale.

To deliuer the dead birth.

Take the root of *Ariſtolochia rotunda* and boyle it in wine and oile; make a *fomentation* thereof and it helps.

To increaſe milke.

Take the buds and tender crops of *Briony*, and boile them in broth or pottage, and let the woman eat thereof, it is ſoueraine.

Take

Take *Mugwort*, *motherwort*, and *mints*, the quaintity of a handful in al, seeth them together in a pint of *malmsey*, and giue her to drinke thereof two or three spooneful at a time, and it wil appeaseth her swounding. For a woman that is new brought in bed, and sounde th much.

Take *Henbane* stamped and mixt with vinegar and apply it plaisterwise ouer al the forehead, and it wil cause sleepe. To prouoke sleepe.

Take *Sage*, *Smallage*, *mallowes*, and *Plantaine*, of each an handful beat them al wel in a morter, then put vnto them oatemeale and milke, and spread it on a fine linnen cloath an inch thicke, and lay it to the brest or brests, or otherwise take white bread Leauen and straine it with Creame, and put thereto two or three yolkes of egges, Salt, oyle, or oyle of *Roses*, and put it vpon a soft fire til it be warme, and so apply it to the brest. For sore brests.

For Morphew, whether it be white or blacke, take of the *Lethargy* of gold a dram, of vnwrought Brimstone two drams, beate them into fine pouder, then take of the oyle of *Roses*, and *Swines* grease, of each a like quantity, and grind them al together with halfe a dram of *camphire* and a little venegar, and annoynt the same therewith morning and euening. For Morphew of both kinds.

To breed haire, take Southern-wood and burne it to ashes, and mixe it wel with common oyle, then annoynt the bald place therewith morning and euening, and it wil breed haire exceedingly. To breed haire.

For the gout, take *Aristolochia rotunda*, *Althea*, *Bettony*, and the rootes of wild *Neepe*, and the rootes of the wild *docke* cut in peeces after the vpper Rind is taken away, of each a like quantity, boyle then al in running water til they be soft and thicke: then stampe them in a morter as smal as may, and put thereto a little quantity of chimney foot, and a pint or better of new *milke* For the Gout.

of

of a Cow which is all of one entire colour, and as much of the vrine of a man that is faſting, and hauing ſtirred them all wel togeather, boyle them once againe on the fire, then as hot as the party can ſuffer it, apply it to the grieued place, and it wil giue him eaſe.

For the Ciatica

For the *Cyatica*, take of Muſtard ſeed a good handfull, and as much in weight of Hony, and as much in weight of figges, and crummes of white bread halfe ſo much, then with ſtrong vinegar beate it in a morter till it come vnto a ſalue, then apply it vnto the grieued place, and it will giue the grieued party eaſe, ſo wil alſo a plaiſter of *Oxicrotium*, if it be continually warme vpon the ſame.

For any payne o ſwelling, or the ſtinging of Venemous beaſt.

To helpe all manner of ſwellings or aches, in what part of the body ſoeuer it be, or the ſtinging of any venemous beaſt, as *Adder*, *Snake*, or ſuch like: take *Horehound*, *Smallage*, *Porrets*, ſmall *mallowes*, and wild *tanſey*, of each a like quantity, and bruiſe them or cut them ſmall: then ſeeth them altogether in a pan with Milke, *oatemeale*, and as much Sheepes ſuet, or Deares ſuet as an Hens egge, and let it boyle till it be a thicke playſter, then lay it vpon a blew woollen cloath, and lay it to the griefe as hot as one can ſuffer it.

For ſwellings in the legs or feete.

For any ſwelling in the legges or feete, take a good handful of water Creſſes and ſhread them ſmall, and put them in an earthen pot, and put thereto thicke Wine Lees, and wheat bran, and Sheeps ſuet, of each of them alike quantity, and let them boile togeather vntill they be thicke, then take a linnen cloth bind it about the ſore and ſwelling as hot as the party grieued can indure it, & let it remayne on a whole night, and a day without any remouing, and when you take it away lay to it a freſh plaiſter, hot, as before, and it wil take away both the paine

paine and the swelling. Other Surgions for this griefe take hony and beere and heat them together, and therewith bath the swelling both morning and euening.

To wash any sore or Vlcer, take running water and *Bolearmoniacke* and *Camphire*, and boyle them together and dip in a cloath, and lay it to the sore as hot as may be indured, also *Plantaine*. Water is good to kill the heate of any sore: or if you take Woodbine leaues and bruise them smal, it wil heale a sore; or if you wash a sore with Veriuyce, that hath beene burnt or scalded, it is a present remedy. A water to wash a sore with.

There be diuers others which for this griefe, take the greene of Goosedung and boyle it in fresh butter, then straine it very cleane and vse it. Also *Sallet oyle* and Snow water beaten together, will cure any scald or burning. A pultis for a sore.

To cure any old sore how grieuous soeuer it be, take of new milke three quarts, a good handful of *Plantain* and let it boile til a pint be consumed: then adde three ounces of *Allom* made in powder, and one ounce and a halfe of white *Sugar candy* powdered. Also then let it boile a little til it haue hard Curd, then straine it, with this warme wash the Vlcer, and all the member about it: then dry it, and lay vpon the vlcer, *vnguentum Basilicon* spread on lint, and your *diminuum* plaister ouer it, for this strengtheneth and killeth the itch: but if you find this is not sharpe enough, then take of milke a quart, *Allum* in pouder two ounces, vinegar a spoonful, when the milke doth seeth, put in the *Allom* and vinegar: then take off the curd, and vse the rest as was before said, and it wil cure it. For any olde sore.

For scabs or itch take *vnguentum populion*, and therewith anoint the party: and it wil helpe, but if it be more strong For any scabs or itch.

ſtrong and ranke, take an ounce of *Nerue oyle*, and three penyworth of *Quickſiluer*, and beate and worke them together, vntil you ſee that aſſuredly the *Quickſiluer* is kild, then let the party annoynte therewith the palmes of his hands, the boughs at his elbowes, his arme pits and hams, and it wil cure al his body.

For the Leproſie. To cure the Leproſie, take the iuyce of *colworts*, and mixe it with *Allom* and ſtrong Ale, and annoint the Leaper therewith morning and euening, and it wil cleanſe him wonderfully, eſpecially if he be purged firſt, and haue ſome part of his corrupt blood taken away.

To take away pimples. To take away either pimples from the face, or any other part of the body, take Virgin wax, and *Sperma cati*, of each a like quantity, and boyle them together, and dip in a fine Linnen cloth, and as it cooles dippe it wel of both ſides, then lay it vppon another faire cloath vpon a table, and then fold vp a cloath in your hands, and al to ſlight it with the cloath, then take as much as wil couer the grieued place.

Priuy parts burnt. If any man haue his priuy parts burnt, take the aſhes of a fine Linnen cloath in good quantity, and put it into the former oyle of egges, and annoynt the ſore member therewith, and it wil cure it.

For any burning. For any burning, take ſixe new layd egges and roaſt them very hard, and take out the yolkes thereof, & put them into an earthen pot, and ſet it ouer the fire on hote imbers, and then whilſt the egges looke blacke, ſtirre them with a ſlice til they come to an oyle, which oyle take and clarifie and put into a glaſſe by it ſelfe, & therewith annoynt any burning, and it wil cure it.

For any ſcalding. For any ſcalding with hot water, oile or otherwiſe, take good creame, & ſet it on the fire, and put into it the greene which growes on a ſtone wal, take alſo *yarrow*, the

the greene of elder barke and fire graſſe, and chop them ſmall, then put them into the creame, and ſtirre it well till it come to a oyle ſalue, then ſtraine it and annoynt the ſore with it.

To drye vp any ſore, take *Smallage*, *Groundſill*, *wild mallowes* and *violet leaues*: chop them ſmall and boyle them in milke with bruiſed *Oatemeale* and ſheepes ſuet, and ſo apply it to the ſore. A pultis to dry a ſore.

To eate away dead fleſh, take *Stubble-wort*, and fold it vp in a red docke leafe, or red wortleafe, and ſo roſt it in the hot imbers and lay it hot to any ſore, and it will fret away all the dead fleſh, or otherwiſe, if you ſtrew vpon the ſore a little Precipitate it will eate away the dead fleſh. To eate away dead fleſh.

To make a water to heale all manner of wounds, you ſhall take *Iuph-wort* flowers, leaues and roots, and in *March* or *Aprill* when the flowers are at the beſt, diſtill it, then with that water bath the wound, and lay a linnen cloth wel therewith in the wound, and it will heale it. A water to heale wounds.

To heale any wound or cut in any fleſh or part of the body: Firſt if it be fit to be ſtitcht ſtich it vp, and then take *Vnguentum aurum*, and lay it vpon a pleagant of lint as bigge as the wound, and then ouer it lay a *diminium* plaiſter made of Saller oyle and red lead, and ſo dreſſe it at leaſt once in foure and twenty houres, but if it be a hollow wound, as ſome thruſt in the body or other members, then you ſhall take *Balſamum cephalicum*, and warming it on a Chafing diſh and coales, dip the tent therein and ſo put it into the wound, then lay your plaiſter of *diminium* ouer it, and do thus at leaſt once a day till it be whole. To heale any wound.

If a mans ſinewes be cut or ſhrunke, he ſhall goe to to the roote of the wild *neepe* which is like woodbine, and For ſinewes cut or ſhrunke.

and make a hole in the midſt of the roote, then couer it wel againe that no ayre goe out nor in, nor raine nor other moyſture: thus let it abide a day and a night, then go and open it, and you ſhall finde therein a certayne lyquor: then take out the lyquor and put it into a cleane glaſſe, and doe thus euery day whilſt you finde any moyſture in the hole, and this muſt onely bee done in the moneths of *April* and *May*: then annoynte the ſore therewith againſt the fire, then wet a linnen cloath in the ſame lyquor, and lap it about the ſore, and the vertue wil ſoone be perceiued.

To breake any Impoſtume.

To breake any Impoſtume, and to ripe it only, take the greene *Melilot* plaiſter, and lay it thereunto, and it is ſufficient.

Additions, & To generall Infirmities of Surgery, and firſt of burnings and ſcalding. For burning, or ſcalding, with eyther Lyquor, or Gunpouder.

Take *Plantaine* water, or *Sallet oyle* and running water beaten together, and therewith annoynte the ſore with a feather, till the fire be taken out, then take the white of egges, and beate them to oyle, which done, take a Hare skinne and clip the haire into the oyle, and make it as thicke as you may ſpread it vpon a fine linnen cloath, and ſo lay it vpon the ſore, and ie mooue it not, vntill it be whole, and if any riſe vp of it ſelfe, clip it away with your ſheares, and if it bee not perfectly whole, then take a little of the oyntment and lay it vnto the ſame place againe: otherwiſe take halfe a buſhell of Glouers ſhreads of all ſorts, and ſo much of running water as ſhal be thought conuenient to ſeeth them, and put thereto a good quarter of a pound of Barrowes greaſe, and then take halfe a buſhell of the doune of Cats tailes, and boyle them altogether, continually ſtirring them, vntill they be ſodden that they may be ſtrayned into an earthen pot or glaſſe, and with it annoynt the ſore.

Or

Or elſe take of *Capreſolly*, *Mouſeare*, *ground-Ivy*, and *Hens dung* of the reddeſt or of the yelloweſt, and frie them with *May-butter* altogether vntill it be brown, then ſtraine it through a cleane cloath, and annoynt the ſore therewith.

Take the middle rind of the Elme tree, and lay it two or three houres in faire running water till it wake ropye like glew, and then annoynt the ſore therewith: Or otherwiſe, take ſheepes tallow and ſheepes dung, and mixe them together till they come to a ſalue, and then apply it to the ſore. For burnings or ſcaldings on the face.

Take *Plantaine* leaues, *daiſie* leaues, the greene barke of *Elders*, and greene *Germaunders*, ſtampe them altogether with freſh butter or with oyle, then ſtraine it through a linnen cloath, and with a feather annoint the ſore till it be whole. An oyntment for burning.

Take of *oyle Oliue* a pint, *Turpentine* a pound, vnwrought *wax* halfe a pound, *Roſen* a quarter of a pound, ſheeps *Suet* two pound, then take of *Orpents*, *Smallage*, *Ragwort*, *Plantaine*, and *Sickle-wort*, of each a good handful, chop all the hearbs very ſmal, and boile them in a pan altogether vpon a ſoaking fire, and ſtirre them exceeding much till they be wel incorporate together, then take it from the fire and ſtraine al through a ſtrong canuaſſe cloth into cleane pots or glaſſes, and vſe it as your occaſion ſhal ſerue, either to annoint, taint, or plaiſter.

Otherwiſe take *Poplar* buds, and *Elder* buds, ſtampe and ſtraine them, then put thereto a little Venice-turpentine, Waxe, and Roſin, and ſo boile them together, and therewith dreſſe the ſore, or elſe take two handful of plantaine leaues, bray them ſmal, and ſtraine out the iuyce, then put to it as much womans milke, a Vlcers & Sores. A ſalue for any old ſore

ſpoon-

ſpoonefull of hony, a yolke of an egge, and as much wheate flower as you thinke will bring it to a falue, then make a plaiſter thereof and lay it vnto the ſore, renewing it once in foure and twenty houres.

To take away dead fleſh.

Take an ounce of *Vnguentum apoſtolorum*, and an ounce of *Vnguentum Aegipciacum*, and put them together in a pott being firſt well wrought together in a bladder, and if the fleſh be weake, put to it a little fine white ſugar, and therewith dreſſe the ſore, or otherwiſe take onely *Precypitate* in fine pouder, and ſtrew into the ſore.

A water for a ſore.

Take a gallon of Smithes ſleacke water, two handfulls of ſage, a pint of hony, a quart of ale, two ounces of Allom, and a little white *copperas*, ſeeth them all together till halfe be conſumed, then ſtraine it, and put it into a cleane veſſell, and therewith waſh the ſore. Otherwiſe take cleane running water and put therein roch *allom* and *madder*, and let them boyle till the *allom* and the *madder* be conſumed, then take the cleareſt of the water and therewith waſh the ſore.

Or elſe take *Sage*, *Fenell*, and *ſinquefoyle*, of each a good handfull, boyle them in a gallond of running water til they be tender, then ſtraine the liquor from the hearbs, and put to it a quarter of a pound of roch *allom*, and let it ſeeth againe a little till the *allom* be melted, then take it from the fire and vſe it, thus, dip lint in it warme and lay it to the ſore, and if it be hollow apply more lint, then make a little bolſter of linnen cloth, and wett it well in the water, then wring out the water, and ſo bind on the bolſter cloſe.

A blacke plaiſter to heale old ſores and kil inflamation.

Take a pint of fallet oyle and put into it ſixe ounces of red lead, and a little ceruſe or white lead, then ſet it ouer a gentle fire, and let it boyle a long ſeaſon ſtirring

in

it wel til it be ſtiffe, which you ſhal trye in this order; let it drop from your ſticke or ſlice vppon the bottome of a ſaucer, and ſo ſtand vntil it be cold, and then if it be wel boyled, it wil bee ſtiffe and very blacke, then take it off, and let it ſtand a litle, and after ſtraine it through a cloath into a Bason, but firſt annoynt the baſon with Sallet oyle, and alſo your fingers, and ſo make it vp into roules plaitterwiſe, and ſpread it and apply it as occaſion ſhal ſerue.

An oyntment to ripen ſores.

Take *mallowes* and *beetes*, and ſeeth them in Water, then drye away the Water from them, and beate the hearbs wel with old Boares greaſe, and ſo apply it vnto the Appoſtume hot.

For the ſtinging of any adder or venemous thing.

Take a handful of *rue* and ſtampe it with ruſty Bacon til it come to a perfect ſalue, and therewith dreſſe the ſore til it be whole.

For any venoming.

If the party be outwardly venomed, take *Sage* and bruiſe it wel and apply it vnto the ſore, renewing it at leaſt twice a day, but if it be inwardly, then let the party drinke the iuyce of *Sage* eyther in Wine or ale morning and euening.

For a ringworme.

Take *Selladine* early in the morning, and bruiſe it wel, and then apply it to the ſore, and renewing it twice or thrice a day.

For the itch.

Take of *campheire* one dramme, of *Quickſiluer* foure penny worth killed wel with Vinegar, then mixe it with two penny-worth of oyle de Bay, and therwith annoynt the body. Or otherwiſe take red *onions* and ſeeth them in running water a good while, then bruiſe the *onions* ſmal, and with the Water they were ſodden in, ſtraine them in, then waſh the infected place with the ſame.

Take a great quantity of the hearbe *Fennel*, and as much

For the dryed Scabbe.

much of red *nettles*, pound them well and ſtraine them, and with the iuyce waſh the patient naked before the fire, and ſo let it drinke in and waſh him againe, and doe ſo diuers dayes till he be whole.

To kill the Itch or tetter ſerpego.

Take a penyworth of white *copperas*, and as much greene *copperas*, a quarter of an ounce of white *Mercury*, a halfepeny worth of *Allom* and burne it, and ſet all ouer the fire with a pint of faire water, and a quarter of a pint of wine Vinegar, boyle all theſe together till they come to halfe a pint, & then annoint the ſore therewith.

To take away the skarres of the smal Poxe.

Take *Barrowes* greaſe a pretty quantity, and take an apple & pare it and take the chore cleane out, then chop your apple and your Barrowes greaſe together, and let it ouer the fire that it may melt but not boyle, then take it from the fire, and put thereto a pretty quantity of roſe water and ſtirre all together till it be cold, and keepe it in a cleane veſſell, and then annoynt the face therewith.

For the French or Spaniſh pox.

Take *quickſiluer* and kill it with faſting ſpittle, then take *verdigreaſe*, *Arabecke*, *Turpentine*, *Oyle oliue*, and *Populion*, and mixe them together to one entire oyntment, and anoynt the Sores therewith, & keepe the party exceeding warme. Or otherwiſe, take of *Allom* burned, of *Roſſin*, *Frankenſence*, *Populion*, oyle of *Roſes*, *Oyle de bay*, *Oyle olyue*, greene *Copperas*, *verdigreaſe*, *White lead*, *Mercury ſublimate* of each a pretty quantity but of *Allome* moſt, then beate to pouder the ſymples that are hard, and melt your oyles, and caſt in your pouders and ſtirre al wel together, then ſtrayne them through a cloth, and apply it warme to the ſores; or elſe take of *Capons* greaſe that hath toucht no water, the iuice of *Rue* and the fine pouder of *Pepper*, and mixe them together to an oyntment, and apply it round about the ſores,

but let it not come into the ſores, and it will dry them vp.

Take of *Treakle* halfe penny worth, of long *Pepper* as much, and of *graynes* as much, a little *ginger*, and a little quantity of *Liveras*, warme them with ſtrong ale, and let the party drinke it off, and lie downe in his bed and take a good ſweate: and then when the ſores ariſe, vſe ſome of the oyntment before rehearſed. To put out the French or Spaniſh Poxe.

Take the iuyce of red *Fennell*, and the iuyce of *Sengreene* and Stone bony, and mixe them very well together till it be thicke, and with it annoynt the party, but before you doe annoynt him you ſhall make this water. Take *Sage* & ſeeth it in very faire water from a gallond to a pottle, and put therein a quantity of hony and ſome allom, and let them boyle a little together; when you haue ſtrained the hearbs from the water, then put in your hony and your allom, and therewith waſh the poxe firſt, and let it dry in well, and then lay on the aforeſayd oyntment. To make the ſcabs of the French Poxe to fall away. Additions, to greene wounds.

Take the oyle of the white of an egge, wheate-flower, a little hony and venice *Turpentine*, take and ſtirre all theſe together, and ſo vſe it about the wound but not within, & if the wound do bleed, then adde to this ſalue a little quantity of *Bolearmoniak*. A deffenſitiue for a greene wound.

Take *Apoponax* and *Galbanum*, of each an ounce, *Ammonianum*, and *Bedlynd* of each two ounces, of *Lethargy* of gold one pound and a halfe, new waxe halfe a pound, *Lapis Calaminaris* one ounce, *Turpentine* foure ounces, *Myrrh* two ounces, *Oyle de bay* one ounce, *Thuſſe* one ounce, *Ariſtolochia* roots two ounces, oyle of *Roſes* two ounces, *ſaluet oyle* two pound, all the hard ſymples muſt bee beaten to fine powder and ſearſed, A ſalue for a greene wound.

take also three pints of right Wine vinegar, and put your foure gummes into the vinegar a whole day before, till the gummes be dissolued, then set it ouer the fire and let it boile very softly vntil your vinegar bee as good as boiled away, then take an Earthen pot with a wide mouth, and put your oyle in and your waxe, but your Waxe must be scraped before you put it in, then by a little at once put in your *Barbary* and stir it exceedingly, then put in all your gummes and all the rest, but let your *Turpentine* be last, and so let it boile till you see it grow to be thicke, then poure it into a Dish of water, and worke it with oyle of *roses* for sticking vnto your hands, and make it vp in roules plaister wise, and here is to be noted, that your oyle of *roses* must not be boyled with the rest, but after it is taken from the fire a little before the *Turpentine*.

A water to heal an greene wound, cut, or sore.

Take three good handfuls of *Sage*, and as much of *Honi-suckle* leaues and the flowers cleane picked, then take one pound of Roch *Allome*, and a quarter of a pound of right English Honey clarified, halfe a penny-worth of greines, and two gallonds of running Water, then put all the sayd things into the water, and let them seeth til halfe be consumed, then take it from the fire til it be almost cold, and straine it through a cleane cloath, and put it vp in a glasse, and then eyther on faint or pleasant vse it as you haue occasion.

To staunch blood, & draw sinewes together.

Take a quart of Rie flower and temper it with running water, and make dough thereof, then according to the bignesse of the wound lay it in with the *defensatiue* plaister before rehearsed, ouer it, and euery dressing make it lesse and lesse till the wound be closed.

A mace oyle for shrinking of sinewes.

Take a quart of *Neates foot oyle*, a quart of Oxe gals, a quart of *Sedquantra*, and a quart of rose water, a hand-

full

full of roſemary ſtrype, and boyle all theſe together till halfe be conſumed, then preſſe and ſtrayne it, and vſe it according as you find occaſion.

Take hony, pitch and butter, and ſeeth them together, and annoynt the hurt againſt the fire, and tent the ſore with the ſame. For a wound in the guts.

Take grounſell and ſtampe it, and ſeeth it with ſweet milke till it be thicke, then temper it with blacke ſope and lay it to the ſore. For pricking with a thorne.

Take Roſin a quarter of a pound, of waxe three ounces, of oyle of Roſes one ounce and a halfe, ſeeth all them together in a pint of white wine till it come to skimming, then take it from the fire and put thereto two ounces of Venice *Turpentine*, & apply it two the wound or ſore. To gather fleſh in wounds.

Take muſtard made with ſtrong vinegar, the crums of browne bread, with a quantity of hony and ſixe figgs minxt, temper all together well and lay it vpon a cloth plaiſterwiſe, put a thinne cloath betweene the plaiſter and the fleſh and lay it to the place grieued as oft as need requires. Additions, for ach or ſwellings. For the Cyatyca.

Take a pound of fine Rozin, of *oyle de bay* two ounces, of *Popilion* as much, of *Frankenſence* halfe a pound, of oyle of *Spyke* two ounces, of oyle *Camomile* two ounces, of oyle of *Roſes* two ounces, of *Waxe* halfe a pound, of *Turpentine* a quarter of a pound, melt them and ſtirre them well together and then dip linnen clothes therein, and apply the ſeare cloath as you ſhall haue occaſion, & note the more oyle you vſe, the more ſupler the ſeare cloath is, and the leſſe oyle the ſtiffer it will be. A yellow ſeare cloth for any paine or ſwelling.

Take a little blacke ſope, ſalt and hony, and beate them well together, and ſpread it on a browne paper and apply it to the bruiſe. For bruiſes ſwelled.

For swelled legs.

Take *mallowes* and seeth them in the dregges of good Ale or *milke*, and make a plaister thereof, and apply it to the place swelled.

For any ache.

Take in the moneth of *may*, *Henbane*, and bruise it wel and put it into an earthen pot and put thereto a pint of *Sallet oyle* and set it in the Sunne til it be all one substance, then annoynt the ache therewith.

A playster for any paine in the ioynts.

Take halfe a pound of vnwrought wax, as much Rosin, one ounce of *galbanum*, a quarter of a pound of *Litharge* of gold, three quarters of white *Leade*, beaten to pouder and searst, then take a pint of *Neates foot oile*, and set it on the fire in a smal vessel which may containe the rest, and when it is all moulten, then put in the pouders and stirre it fast with a slice, and trye it vppon the bottome of a saucer, when it beginneth to be somewhat hard, then take it from the fire, and annoynt a faire boord with *Neates foote oyle*, and as you may handle it for heate, worke it vp in roules, and it wil keepe fiue or sixe yeares, being wrapped vp close in papers, and when you wil vse it, spread of it thin vpon new lockram or leather somewhat bigger then the griefe, and so if the griefe remoue follow it, renewing it morning and euening, and let it be somewhat warme when it is layd on, and beware of taking cold, and drinking hot wines.

Additions,

To get in the Bones.

For bones out of ioynt, or sinnewes sprung or strained.

Take foure or fiue yolkes of egges, hard sodden or rosted, and take the branches of great *morrel*, and the berries in Summer, and in Winter the rootes, and bray all wel together in a morter with sheeps milke, and then frye it vntil it bee very thicke, and so make a plaister thereof, and lay it about the sore, and it wil take away both paine and swelling.

A bath for broken ioynts.

Take a gallond of standing lye, put to it of *Plantan* and *knot-grasse*, of each two handfuls, of *worme-wood*, and *comfrey*,

comfrey, of each a handful; and boile all theſe together in the lye a good while, and when it is luke warme bath the broken member therewith, and take the buds of Elder gathered in *March*, and ſtripped downeward and a little boyle them in water, then eate them in oyle and very little wine Vinegar, a good quantity at a time in the morning euer before meat, or an houre before the Patient go to dinner, and it much auailes to the knitting of bones.

A general bath for clearing the skin, and comforting the body.

Take *roſemary*, *ſorberſew*, *organie*, *Pellitory* of the wall, *fennell*, *mallowes*, *viuter leaues*, and *Nettles*, boyle all theſe together, and when it is wel ſodden put to it two or three gallonds of milke, then let the party ſtand or ſit in it an houre or two, the bath reaching vp to the ſtomache, and when they come out they muſt go to bed and ſweat, beware taking of cold.

A ſoueraine helpe for broken bones.

Make a plaiſter of wheat flower and the whits of egges and ſpread it ona double linnen cloth, and lay the plaiſter on an euen board, and lap the broken limbe thereon, and ſet it euen according to nature, and lap the plaiſter about it and ſplint it, and giue him to drinke *Knitwort* the iuyce thereof twice and no more, for the third time it wil vnknit, but giue him to drinke nine dayes each day twice the iuyce of *comfrey*, *daiſies* and *ſanicle* in ſtale Ale and it ſhal knit it, and let the fore-ſaid playſter lye ten dayes at the leaſt, and when you take it away do thus, take *hore-hound*, *red fennel*, *Hounds tong*, *Wal-wort*, and *Pelitory*, and ſeeth them, then vnroule the member and take away the ſplints, and then bath the linnen and the plaiſter about the member in this bath, vntil it haue ſo ſoked ſo long that it come eaſily away of it ſelfe, then take the ſame playſter and lay it as it was before, and let it lye three dayes vntil hot and let each playſter lye a day

and a night and alwayes ſplint it well, and after cheriſh it with the ointments before Rehearſed, for broken bones, and keep the party from vnwholſome meats and drinks til he be whole: and if the hurt be on his arme let him beare a ball of greene hearbs in his hand to prohibit the ſhrinking of the hand and ſinewes.

For any Feuer. Take *Sage, Ragwort, Yarrow*, vnſet *Leekes* of each a like quantity, ſtamp them with Bay ſalt and apply them to the wriſts of the hands.

To expel heate in a Feuer. Blanch Almonds in the cold water, and make milke of them (but it muſt not ſeeth) then put to it ſugar, and in the extremity of heat, ſee that you drinke thereof.

The royall medicine for Feuers. Take three ſpooneful of Ale and a little *Saffron*, and bruiſe and ſtraine it thereto, then adde a quarter of a ſpoonful of fine *Triacle* and mixe altogether, and drinke it when the fit comes.

Another. Take two roots of *Crow foot* that growes in a marſh ground, which haue no little rootes about them, to the number of twenty or more, and a little of the Earth that is about them, and do not waſh them, and adde a little quantity of Salt, and mixe all well together, and lay it on linnen cloathes, and bind it about your thumbs betwixt the firſt and the next ioynt, and let it lie nine daies vnremoued, and it will expel the Feuer.

An approued Medicine for the greateſt Lasks or Flixe.

☞ Take a right *Ramiuarer* the greateſt you can get, or elſe two little ones, roaſt them very tender to pap, then take away the skinne and the core and vſe only the pap, and the like quantity of *Gralls* finely ſcraped, mixe them both together vppon a Trencher before the fire, and

worke

wax let them wel to a plaister, them spread it vppon a linen cloth warmed very hot as may be suffered, and so bind it vnto the nauill for twenty foure houres, vse this medicine twice or thrice or more, vntil the Laske bee stayed.

OF

To make the oyle of *Swallowes*, take *Lauendar cotton, Spike, Knot-grasse, Rubwort, Balme, Valerian, Rosemary tops, Woodbine tops, Vine strings, French mallows*, the tops of *Alecost, Strawberry strings, Tutsan, Plantain, Walnut tree leaues*, the tops of young *Baies, Isop, violet leaues, Sage* of vertue, fine Roman *Wormwood*, of each of them a handful, *Cammomile* and *Red roses*, of each two handful, twenty quicke *Swallowes*, and beate them altogether in a great morter, and put to them a quart of *Neats foot oile*, or May butter, and grind them all well together with two ounces of Cloues wel beaten, then put them altogether in an earthen pot, and stop it very close that no ayre come into it, and set it nine dayes in a Seller or cold place, then open your pot and put into it halfe a pound of white or yellow waxe cut very smal, & a pint of oyle or butter, then set your pot close stopped into a pan of water, and let it boile sixe or eight houres, and then straine it: this oyle is exceeding soueraine for any broken bones, bones out of ioynt, or any paine or griefe eyther in the bones or sinewes. Oyle of Swallowes.

To make oyle of *Camomile*, take a quart of *Sallet oyle* and put it into a glasse, then take a handful of *Camomile* and bruise it, and put it into the oyle, and let them stand in the same twelue daies, onely you must shift it euery three dayes, that is to straine it from the old *Camomile*, and put in as much of new, and that oile is very soueraine for any griefe proceeding from cold causes. To make oyle of Camomile.

To

To make oyle of Lauender.

To make oyle of *Lauender*, take a pint of Sallet oyle and put it into a glasse, then put to it a handfull of *Lauender*, and let it stand in the same twelue dayes, and vse it in all respects as you did your oyle of *camomill*.

To make smooth hands.

To make an oyle which shall make the skinne of the hands very smooth, take *Almonds* and beate them to oyle, then take whole *cloues* and put them both together into a glasse, & set it in the Sunne fiue or sixe dayes, then straine it, and with the same annoynt your hands euery night when you goe to bed, otherwise as you haue conuenient leasure.

To make Dr. Stéuens water.

To make that soueraigne water which was first inuented by Doctor *Steuens*, in the same forme as he deliuered the Receite to the Arch-bishop of *Canturbury*, a little before the death of the sayd Doctor. Take a gallond of good Gascoyne wine, then take *Ginger*, *Galingale*, *Cinnamon*, *Nutmegs*, *Graines*, *cloues*, bruiled, *Fennell-seed*, *carraway-seeds*, *Origanum*, of euery of them a like quantity, that is to say a dramme: Then take *Sage*, *wild Marioram*, *Fany royall*, *Mints*, *red roses*, *Time*, *Pellitory*, *Rosemary*, *wild time*, *commonill*, *Lauender*, of each of them a handfull, then bray the spices small, & bruise the herbs & put all into the wine, and let it stand so twelue houres, only stirre it diuers times, then distill it by a Lymbecke, and keepe the first water by it selfe for that is the best, then keepe the second water for that is good, & for the last neglect it not, for it is very wholesome though the worst of the three. Now for the vertue of this water it is this, it comforteth the spirits & vitall parts, & helpeth all inward diseases that commeth of cold, it is good against the shaking of the palsie, & cureth the contraction of sinewes, & helpeth the conception of women that be barraine, it killeth the wormes in the body, it cleareth the

cold

cold Cough, it helpeth the tooth-ach, it comforteth the stomack, and cureth the old dropsy, it helpeth the stone in the bladder and in the reines, it helpeth a stinking breath: And whosoeuer vseth this water moderately & not too often, preserueth him in good liking, and will make him seeme young in old age. With this water Doctor *Stenens* preserued his owne life vntill such extreame age, that he could neither goe nor ride, & he continued his life being bed rid fiue yeeres, when other Physitions did iudge he could not liue one yeere, when he did confesse a little before his death; saying: that if he were sicke at any time, he neuer vsed any thing but this water only; And also the Archbishop of *Canterbury* vsed it, and found such goodnes in it that he liued till he was not able to drinke of a cup, but sucked his drinke through a hollow pipe of siluer. This water will bee much the better if it be set in the Sunne.

A restorative of Rosasolis.

To make a cordial *rosasolis*, take *rosasolis*, & in any wise touch not the leaues thereof in the gathering, nor wash it; take thereof foure good handfu's, then take two good pints of *Aquauitæ*, and put them both in a glasse or pewter pot of three or foure pints, and then stop the same hard and iust, and so let it stand three dayes and three nights, and the third day straine it through a cleane cloth into another glasse or pewter pot, and put thereto halfe a pound of *Sugar* beaten small, foure ounces of fine *Liuoras* beaten into powder, halfe a pound of sound Dates the stones being taken out, and cut them & make them cleane, and then mince them small, and mixe all these together and stop the glasse or pot close & iust, and after distill it through a lymbecke, then drink of it at night to bedward halfe a spoonefull with ale or beere,

but

but Ale is the better, as much in the morning fasting for there is not the weakest body in the world that wanteth nature or strength, or that is in a consumption, but it will restore him againe, and cause him to be strong & lusty, and to haue maruailous hungry stomacke, prouided alwaies that this *rosa solis* be gathered (as you possibly you can) at the full of the Moone when the Sun shineth before noone, and let the roots of them be cut away.

Additions, to the Oyles. To make oyle of Roses or Violets.

Take the flowers of roses or violets and breake them small and put them into sallet oyle, and let them stand in the same tenne or twelue daies, and then presse it, Or otherwise take a quart of oyle *Olyue*, and put thereto Sixe spoonefuls of cleane water, and stirre it well with a slice, till it waxe as white as milke, then take two pound of red rose leaues and cut the white of the ends of the leaues away, and put the roses into the oyle, and then put it into a double glasse and set it in the Sunne all the summer time, and it is soueraine for any scalding or burning with water or oyle.

Or els take red roses new plucked a pound or two, and cut the white ends of the leaues away, then take May Butter and melt it ouer the fire with two pound of oyle olyue, and when it is clarified put in your roses and put it all in a vessell of glasse or of earth, and stop it well about that no ayre enter in nor out, and set it in another vessell with water and let it boyle halfe a day or more, and then take it forth and straine or presse it through a cloth, and put it into glasse bottells, this is good for all manner of vnkind heates.

To make oyle of Nutmegges.

Take two or three pound of *Nutmegs* and cut them small and bruise them well, then put them into a pan and beate them and stirre them about, which done, put them into a cannasle or strong linnen bagge, and close them

them in a preſſe and preſſe them, and get out al the Lyquor of them which wil be like manna, then ſcrape it from the canuas bagge as much as you can with a knife, then put it into ſome veſſel of glaſſe and ſtoppe it wel, but ſet it not in the Sun for it wil waxe cleane of it ſelfe within ten or fifteene dayes, and it is woorth thrice ſo much as the Nutmegges themſelues, and the oyle hath very great vertue in comforting the ſtomack and inward parts, and aſſwaging the paine of the mother & Cyatica.

To make perfect oyle of Spike.

Take the flowers of *Spike*, and waſh them only in *oile oliue*, and then ſtamp them wel, then put them in a Canuaſſe bagge, and preſſe them in a preſſe as hard as you can, and take that which commeth out carefully, and put it into a ſtrong veſſel of glaſſe, and ſet it not in the Sun, for it wil cleare of it ſelfe, and waxe faire and bright, and wil haue a very ſharpe odor of the *Spike*, and thus you may make oyle of other hearbs of like nature, as *Lauender, camomile* and ſuch like.

To make oyle of Maſticke.

Take an ounce of *Maſtick*, and an ounce of *Olibanum* pounded as ſmal as is poſſible, and boyle them in oyle Oliue (a quart) to a third part, then preſſe it and put it into a glaſſe, and after ten or twelue dayes it wil be perfect: it is exceeding good for any cold griefe.

Thus hauing in a ſummary manner paſſed ouer al the moſt Phyſical and Chyrurgical notes which burtheneth the mind of our *Engliſh Houſe-wife*, being as much as is needful for the preſeruation of the health of her family: and hauing in this Chapter ſhewed al the inward vertues wherewith ſhe ſhould be adorned. I wil now returne vnto her more outward and actiue Knowledges, wherein albeit the mind be as much occupied as before: yet is the body a great deale more in vſe: neyther can the worke be wel affected by Rule or direction.

THE

The Engliſh Houſwifes Skill in Cookery.

Chap. 2.

Of the outward and actiue Knowledge of the Houſewife; and of her skill in Cookery; as Sallets of all ſorts, with Fleſh, Fiſh, Sauces, Paſtry, Banquetting-ſtuffe and ordering of great feaſts.

TO ſpeake then of the outward and actiue Knowledges which belong vnto our Engliſh Houſ-wife, I hold the firſt and moſt principal to be a perfect skill and Knowledge in Cookery, together with all the ſecrets belonging to the ſame, becauſe it is a duty rarely belonging to a woman; and ſhe that is vtterly ignorant therein, may not by the Lawes of ſtrict Iuſtice challenge the freedome of Marriage, becauſe indeede ſhe can then but performe halfe her vow; for ſhee may loue and obey, but ſhe cannot cheriſh, ſerue, and keepe him with that true duty which is euer expected.

She muſt know all Hearbes.

To proceede then to this knowledg of Cookery, you ſhal vnderſtand, that the firſt ſteppe thereunto is, to haue Knowledge of all ſorts of hearbes belonging vnto the Kitchin, whether they be for the Pot, for Salkts, for Sauces, for Seruings, or for any other Seaſoning, or adorning: which skill of Knowledge of the Hearbes, ſhee muſt get by her owne true labour and experience, and

and not by my relation, would be much too tedious, & for the vſe of them, he ſhall ſee it in the compoſition of diſhes & meates here after following. She ſhal alſo know the time of the yeere, Moneth and Moone, in which all Herbs are to be ſowne; and when they are in their beſt flouriſhing, that gathering all Herbs in their height of goodneſſe, ſhee may haue the prime vſe of the ſame. And becauſe I will inable, and not burden her memory, I will here giue her a ſhort Epitomie of all that knowledge.

Her skill in the Garden.

Firſt then, let our Engliſh Houſ-wife know, that ſhe may at al times of the Moneth and Moone, generally ſow *Aſparagus, Colworts, Spinage, Lettice, Parſnips, Radiſh*, and *Chiues*.

In February, in the new of the Moone, ſhe may ſow *Spyke, Garlicke, Borage, Bugloſe, Cheruyle, Coriander, Gourds, Creſſes, Marioram, Palma Chriſti, Flower gentle, white Poppy, Purſlan, Radiſh, Rocket, Roſemary, Sorrell, Double Marigolds* and *Time*. The Moone full ſhee may ſow *Anniſeeds* muſked, *Violets, Bleets, Skirrits, White Succory, Fennell*, and *Parſly*. The Moone old, ſow *Holy Thyſtell, Cole Cabadge, white Cole, greene Cole, Cucumbers, Harts-Horne, Diers Graine, Cabadge, Lettice, Mellons, Onions, Parſnips, Larkes Heele, Burnat* and *Leekes*.

In March the Moone new, ſow *Garicke, Borrage, Bugloſſe, Cheruile, Coriander, Gourds, Marioram, white Poppy, Purſlan, Radiſh, Sorrel, Double Marigolds, Time, violets*. At the full Moone, *Aniſeeds, Bleets, Skirrets, Succory, Fennell, Apples of Loue*, and *Marueilous Apples*. At the wane, *artichocks, Baſſil, Bleſſed Thiſtle, Cole cabadg, white cole, Greene cole, citrons, cucumbers, Harts-Horne, Samphire, Spinage, Gilliflowers, Iſop, cabadge, Lettice, Mellons, Mugrets, Onions, Flower Gemil, Burnet, Leeks*,

and

and *Savory*. In *May*, the Moone old, ſow *bleſſed Thiſtle*. In *Iune*, the Moone new, ſow *gourds* and *radiſhes*. The Moone old, ſow *cucumbers*, *mellons*, *parſnips*. In *July*, the Moone at ful, ſow *white Succory*; and the Moone old, ſow *cabadge*, *lettice*. Laſtly, in *Auguſt*, the Moone at the ful, ſow white *Succory*.

Tranſplanting of Hearbes.

Alſo ſhe muſt know, that Hearbs growing of Seeds, may be tranſplanted at al times, except *cherufle*, *Arage*, *Spinage*, and *Pſeley*, which are not good being once tranſplanted, obſeruing euer to tranſplant in moyſte and rainy weather.

Choiſe of ſeeds

Alſo ſhe muſt know, that the choice of ſeeds are twofold, of which ſome grow beſt, being new, as *cucumbers* and *leekes*, and ſome being old as *coriander*, *parſley*, *ſauory*, *beets*, *origan*, *treſſes*, *ſpinage* and *poppy*, you muſt keep cold *lettice*, *artichokes*, *baſil*, *holy thiſtle*, *cabadge*, *cole*, *Dyers graine*, and *mellons*, fifteene dayes after they put foorth of the earth.

Proſperity of ſeeds.

Alſo Seedes proſper better being ſowne in temperate weather, then in hot, cold, or dry dayes. In the moneth of *April*, the moone being new, ſow *marioram*, *flower gentle*, *time*, *violets*: in the ful of the moone, *apples of loue*, and *marualous apples*: and in the wane, *artichokes*, *holy thiſtle*, *cabadge*, *cole*, *citrons*, *harts-horne*, *Samphire*, *gilliflowers*, and *parſnips*.

Gathering of ſeeds

Seeds muſt be gathered in faire weather, at the wane of the moone, and kept ſome in Boxes of Wood, ſome in bagges of Leather, and ſome in veſſels of earth, and after to be well cleanſed and dryed in the Sunne or Window: Otherſome, as *Onions*, *chibols*, and *Leekes*, muſt be kept in their huſkes. Laſtly, ſhe muſt know, that it is beſt to plant in the laſt quarter of the moone, together gratis in the laſt but one, and to graſt two dayes

after

after the change, and thus much for her knowledge briefly of Hearbs, and how he ſhall haue them continually for her vſe in the Kitchin.

It reſteth now that I proceede vnto Cookerie it ſelfe, which is the dreſſing and ordering of meate, in good and wholeſome manner; to which, when our *Houſ wife* ſhall addreſſe her ſelfe, ſhe ſhall well vnderſtand, that theſe qualities muſt euer accompany it: Firſt, ſhee muſt bee cleanly both in body and garments, ſhee muſt haue a quicke eye, a curious noſe, a perfect taſte, and ready eare (ſhee muſt not be butter-fingred, ſweete-toothed, not faint-hearted;) for, the firſt will let euery thing fall, the ſecond will conſume what it ſhould increaſe, and the laſt will looſe time with too much niceneſſe. Now for the ſubſtance of the Art it ſelfe, I will diuide it into fiue parts; the firſt, Sallats and Fricaſes; the ſecond, boyled Meates and Broaths; the third, Roaſt meates, and Carbonados; the fourth, Bak't meates and Pies; and the fifth, Banqueting and made diſhes, with other conceites and ſecrets.

OF Cookery and the parts thereof,

Firſt then to ſpeake of Sallats, there be ſome ſimple, and ſome compounded; ſome onely to furniſh out the table, and ſome both for vſe and adornation: your ſimple Sallats are Chibols pilled, waſht cleane, and halfe of the greene tops cut cleane away, ſo ſerued on a Fruit diſh, or Chines, Scalions, Radiſh-roots, boyled Carrets, Skirrets, and Turneps, with ſuch like ſerued vp ſimply: alſo, all young Lettice, Cabage-lettice, Porſlan, and diuers other hearbs which may be ſerued ſimply without any thing, but a little Vinegar, Sallet-Oyle, and Sugar: Onions boyled, and ſtript from their rind, and ſerued vp with Vinegar,

Of Sallats. Simple Sallats.

oyle & Pepper is a good ſimple Sallat; ſo is Samphire, Beane-cods, Spuragus, and Cucumbers, ſerued in likewiſe with Oyle, Vinegar and Pepper, with a world of others, too tedious to nominate.

Of compound Sallets.

Your compound Sallats, are firſt the young Buds and Knots of all manner of wholeſome hearbs at their firſt ſpringing; as Red-ſage, Mints, Lettice, Violets, Marigolds, Spinage, and many other mixed together, and then ſerued vp to the table with Vinegar, Saliet Oyle and Sugar.

☞ Another compound Sallet.

To compound an excellent Sallat, and which indeed is vſuall at great feaſts, and vppon Princes tables: Take a good quantity of blancht Almonds, and with your ſhredding Knife cut them groſſely; then take as many Raiſins of the Sunne cleane waſht, and the ſtones pickt out, as many Figs ſhred like the Almonds, as many Capers, twice ſo many Olyues, and as many Currants as of all the reſt cleane waſht: a good handfull of the ſmall tender leaues of Red Sage and Spinage: mixe all theſe well together with good ſtore of Sugar, and lay them in the bottome of a great diſh; then put vnto them Vinegar and Oyle, and ſcrape more Sugar ouer all: then take Orenges and Lemons, and paring away the outward pilles, cut them into thinne ſlices, then with thoſe ſlices couer the Sallet all ouer; which done, take the fine thinne leafe of the red Coleflower, and with them couer the Orenges and Lemons all ouer; then ouer thoſe red leaues lay another courſe of old Oliues, and the ſlices of wel pickled Cucumbers, together with the very inward heart of your Cabbage lettice cut into ſlices; then adorne the ſides of the diſh, and the top of the Sallet with moſlices of Lemons and Orenges, and ſo ſerue it vp.

To

To make an excellent compound boild Sallat: take of Spinage well waſht, two or three handfulls, and put it into faire water, and boile it till it be exceeding ſoft, & tender as pap; then put it into a Cullander and draine the water from it, which done, with the backſide of your Chopping-knife chop it, and bruiſe it as ſmall as may be: then put into a Pipkin with a good lumpe of ſweete butter, and boile it ouer againe; then take a good handfull of Currants cleane waſht, and put to it, & ſtirre them well together; then put to as much Vinegar as will make it reaſonable tart, and then with Sugar ſeaſon it according to the taſte of the Maſter of the houſe, and ſo ſerue it vppon ſippets. An excellent boiled Sallat.

Your preſerued Sallats are of two kinds, either pickled, as are Cucumbers, Samphire, Purſlan, Broome, and ſuch like, or preſerued with Vinegar; as Violets, Primroſe, Cowſlops, Gillyflowers of all kindes, Broome-flowers, and for the moſt part any wholeſome flower whatſoeuer. Of preſeruing of Sallets.

Now for the picking of Sallats, they are only boiled, and then drained from the water, ſpread vpon a table, and good ſtore of Salt throwne ouer them, then when they are thorow cold, make a Pickle with Water, Salt, and a little Vinegar, and with the ſame pot them vp in cloſe earthen pots, and ſerue them forth as occaſion ſhall ſerue.

Now for preſeruing Sallats, you ſhall take any of the Flowers before-ſayd after they haue beene pickt cleane from their ſtalkes, and the white ends (of them which haue any) cleane cut away, and waſht and dryed, and taking a glaſſe-pot like a Gally-pot, or for want thereof a Gally-pot it ſelfe; and firſt ſtrew a little Sugar in the bottome, then lay a layer of the Flowers,

then couer that layer ouer with Sugar, then lay another layer of the Flowers, and another of Sugar; and thus do one aboue another till the pot be filled, euer and anon preſſing them hard downe with your hand: this done, you ſhall take of the beſt and ſharpeſt Vinegar you can get (& if the vinegar be diſtilled vinegar, the Flowers will keepe their colours the better) and with it fill vp your pot till the Vinegar ſwim aloft, and no more can be receiued; then ſtop vp the pot cloſe, & ſet them in a dry temperate place, and vſe them at pleaſure, for they will laſt all the yeere.

The making of ſtrange Sallats.

Now for the compounding of Sallats of theſe pickled and preſerued thinges, though they may be ſerued vp ſimply of themſelues, and are both good and daintie; yet for better curioſity, and the finer adorning of the table, you ſhall thus vſe them: Firſt, if you would ſet forth any red Flower that you know or haue ſeene, you ſhall take your pots of preſerued Gilliflowers, and ſuting the colours anſwerable to the Flower you ſhall propoſition it forth, and lay the ſhape of the Flower in a Fruit-diſh; then with your Purſlan leaues make the greene Coffin of the Flower, and with the Purſlan ſtalkes, make the ſtalke of the Flower, and the diuiſions of the leaues and branches; then with the thinne ſlices of Cucumbers make their leaues in true proportions, iagged or otherwiſe: and thus you may ſet forth ſome full blowne, ſome halfe blowne, and ſome in the bud, which will be pretty and curious. And if you will ſet forth yellow flowers, take the pots of Primroſes and Cowſlops, if blew flowers, then the pots of Violets, or Bugloſſe Flowers, and theſe Sallats are both for ſhew and vſe; for they are more excellent for taſte then for to looke on.

Now

Now for *Sallets* for ſhew only, and the adorning and ſetting out of a table with numbers of diſhes, they be thoſe which are made of *Carret* rootes of ſundrye colours well boiled, and cut out into many ſhapes and proportions, as ſome into knots, ſome in the manner of Scutchions and Armes, ſome like Birds, and ſome like wild Beaſts, according to the Art and cunning of the Workman; and theſe for the moſt part are ſeaſoned with Vinegar, Oyle, and a little Pepper. A world of other Sallets there are, which time and experience may bring to our *Houſ-wifes* eye, but the compoſition of them, and the ſeruing of them differeth nothing from theſe already rehearſed. Sallats for ſhew onely.

OF Fricaſes and Quelque choſes.

Now to proceed to your Fricaſes, or Quelque choſes, which are diſhes of many compoſitions, and ingredients; as Fleſh, Fiſh, Egges, Hearbs, and many other thinges, all being prepared and made ready in a frying pan, they are likewiſe of two ſorts, ſimple and compound.

Your ſimple Fricaſes are Egges and Collops fried, whether the Collops be of Bacon, Ling, Beefe, or young Porke, the frying whereof is ſo ordinary, that it needeth not any relation, or the frying of any Fleſh or Fiſh ſimple of it ſelfe with Butter or ſweete Oyle. Of ſimple Fricaſes.

To haue the beſt Collops and Egges, you ſhall take the whiteſt and youngeſt Bacon; and cutting away the ſward, cut the Collops into thin ſlices, lay them in a diſh, and put hot water vnto them, and ſo let them ſtand an houre or two, for that will take away the extreame ſaltneſſe: then draine away the water cleane, and put them into a drie pewter diſh, and lay them one by one, and ſet them before the heate of the fire, ſo as they may toaſte and turne them ſo, Beſt Collops and Egges.

as they may toaſt ſufficiently thorow and thorow: which done, take your Egges and breake them into a diſh, and put a ſpooneful of vinegar vnto them: then ſet on a cleane Skillet with faire water on the fire, and as ſoone as the water boyleth put in the Egges, and let them take a boile or two, then with a ſpoone trie if they bee hard enough, and then take them vp, and trim them, and dry them; and then diſhing vp the Collops, lay the Egges vpon them, and ſo ſerue them vp: and in this ſort you may potch Egges when you pleaſe, for it is the beſt and moſt wholſome.

Of the compound frieaſes.

Now the compound Fricaſes are thoſe which conſiſt of many things, as Tanſies, Fritters, Pancakes, and any Quelque choſe whatſoeuer, beeing things of great requeſt and eſtimation in *France*, *Spaine*, and *Italy*, and the moſt curious Nations.

To make the beſt Tanſey.

☞

Firſt then for making the beſt Tanſey, you ſhal take a certaine number of egges, according to the bigneſſe of your Frying-pan, and breake them into a diſh, abating euer the white of eucry third egge; then with a Spoone you ſhal cleanſe away the little white Chickin-knors which ſticke vnto the yolkes; then with a little Creame beate them exceedingly together; then take of greene Wheat blades, Violet leaues, Straw berry leaues, *Spinage*, and *Succory*, of each a like quantity, and a few *Walnut tree* buds; choppe and beate all theſe very wel, and then ſtraine out the iuice, and mixing it with a little more Creame, put it to the egges, and ſtirre all wel together, then put in a few crummes of Bread, fine grated Bread, *Cynamon*, *Nutmegge*, and Salt, then put ſome ſweete Butter into the Frying-panne, and ſo ſoone as it is diſſolued or melted, put in the Tanſey, and frie it browne without burning, and with a diſh

turne

turne it in the Panne as occaſion ſhal ſerue; then ſerue it vp, hauing ſtrewed good ſtore of Suger vppon it, for to put in Suger before wil make it heauy: Some vſe to put of the hearbe Tanſey into it, but the *Walnut* tree buds do giue the better taſte or relliſh; and therefore when you pleaſe for to vſe the one, doe not vſe the other.

To make the beſt Fritters, take a pint of Creame and warme it: then take eight egges, onely abate foure of the whites, and beate them wel in a Diſh, and ſo mixe them with the Creame, then put in a little Cloues, Mace Nutmegge and Saffron, and ſtirre them wel together: then put in two ſpoonful of the beſt Ale-barme, and a little Salt, and ſtirre it againe: then make it thicke according vnto your pleaſure with wheate flower: which done, ſet it within the aire of the fire, that it may riſe and ſwel, which when it doth, you ſhall beate it in once or twice, then put into it a penny pot of Sacke: al this being done, you ſhal take a pound or two of very ſweet ſeame, and put it into a panne, and ſet it ouer the fire, and when it is moulten and beginnes to bubble, you ſhal take the Fritter-batter, and ſetting it by you, put thick ſlices of wel-pared Apples into the Batter, and then taking the Apples and Batter out together with a ſpoone, put it into the boiling Seame, and boile your Fritters criſpe and browne: And when you finde the ſtrength of your ſeame conſume or decay, you ſhall renew it with more ſeame, and of all ſorts of ſeame, that which is made of the Beefe-ſuet is the beſt and ſtrongeſt: when your Fritters are made, ſtrow good ſtore of Suger and Cinamon vpon them, being faire diſht, and ſo ſerue them vp. The beſt Fritters.

To make the beſt Pancake, take two or three egges, The beſt Pancakes.

and breake them into a diſh, and beate them well: then adde vnto them a pretty quantity of fair running water, and beate all well together: then put in Cloues, Mace, Cinamon, and Nutmeg, and ſeaſon it with Salt: which done, make it thicke as you thinke good with fine Wheate-flower: then frie the cakes as thinne as may be with ſweete Butter, or ſweete Seame, and make them browne, and ſo ſerue them vp with Sugar ſtrowed vpon them. There be ſome which mixe Pancakes with new Milke or Creame, but that makes them tough, cloying, and not criſpe, pleaſant and ſauory as running water.

Veale toaſts. To make the beſt Veale toſts; take the kidney fat, & all of a loyne of veale roſted, and ſhred as ſmall as is poſſible; then take a couple of Egges and beate them very well; which done, take Spinage, Succory, Violet-leaues, and Marigold-leaues, and beate them, and ſtraine out the iuyce, and mixe it with the Egges: then put it to your Veale, and ſtirre it exceedingly well in a diſh; then put to good ſtore of Currance cleane waſht and pickt, Cloues, Mace, Sinamon, Nutmegge, Sugar and Salt, and mixe them all perfectly well together: then take a Manchet and cut it into toſts, and toſt them well before the fire; then with a ſpoone lay vpon the toſt in a good thickneſſe the Veale, prepared as before-ſayd: which done, put into your frying pan good ſtore of ſweete Butter, and when it is well melted and very hot, put your toſtes into the ſame with the bread ſide vpward, and the fleſh ſide downeward: and aſſoone as you ſee they are fryed browne, lay vpon the vpper-ſide of the toſtes which are bare more of the fleſh meate, and then turne them, and frie that ſide browne alſo: then take them out of the pan and diſh them vp, and

and ſtrow Sugar vpon them, and ſo ſerue them forth.

There be ſome Cookes which will do this but vpon one ſide of the toſtes, but to do it on both is much better; if you adde Creame it is not amiſſe.

To make the beſt Panperdy, take a dozen Egges, & breake them, and beate them very well; then put vnto them Cloues, Mace, Cinamon, Nutmeg, and good ſtore of Sugar, with as much Salt as ſhall ſeaſon it: then take a Manchet, and cut it into thicke ſlices like toſtes; which done, take your frying pan, and put into it good ſtore of ſweete Butter, and being melted lay in your ſlices of bread, then powre vpon them one halfe of your Egges; then when that is fryed, with a diſh turne your ſlices of bread vpward, and then powre on them the other halfe of your Egges, & ſo turne them till both ſides be browne; then diſh it vp, and ſerue it with Sugar ſtrowed vpon it. To make the beſt panpeady.

To make a Quelquechoſe, which is a mixture of many things together; take the Egges and breake them, & do away the one halfe of the Whites, and after they are beaten put them to a good quantity of ſweete Creame, Currants, Cinamon, Cloues, Mace, Salt, & a little Ginger, Spinage, Endiue, and Marigold flowers groſſely chopt, and beate them all very well together; then take Piggs Petitoes ſlic't, and groſſely chopt, and mixe them with the egges; and with your hand ſtirre them exceeding well together; then put ſweete butter in your frying pan, and being melted, put in all the reſt, and fry it browne without burning, euer and anon turning it till it be fryed enough; then diſh it vp vpon a flat Plate, and ſo ſerue it forth. Onely herein is to be obſerued, that your Petitoes muſt be very well boyled before you put them into the Fryeaſe. To make any quelquechoſe.

And

Additions, To the House-wifes Cookery,

And in this manner as you make this Quelquechoiſe, ſo you may make any other, whether it be of fleſh, ſmal Birds, ſweet roots, oyſters, muskles, cockles, giblets, lemons, Orenges, or any fruit, pulſe, or other Sallet herb whatſoeuer, of which to ſpeake ſeuerally were a labour infinite, becauſe they vary with mens opinions. Only the compoſition and worke is no other then this before preſcribed; and who can do theſe, need no further inſtruction for the reſt. And thus much for *Sallets* and *Fricaſes*.

To make Fritters.

To make Fritters another way, take Flower, milke, Barme, grated Bread, ſmal Raiſins, Cinamon, Suger, Cloues, Mace, Pepper, Saffron, and Salt; ſtirre all theſe together very wel with a ſtrong ſpoone, or ſmal Ladle, then let it ſtand more then a quarter of an houre that it may riſe, then beate it in againe, and thus let it riſe & bebeate in, twice or thrice at leaſt; then take it and bake them in ſweete and ſtrong ſeame, as hath beene before ſhewed, and when they are ſerued vp to the table, ſee you ſtrow vpon them good ſtore of Suger, Cynamon, and Ginger.

To make the beſt white Puddings.

Take a pint of the beſt, thickeſt and ſweeteſt creame, and boile it, then whileſt it is hot, put thereunto a good quantity of faire great Oate-meale Grotes very ſweete, and cleane pickt, and formerly ſteept in Milke twelue houres at leaſt, and let it ſoake in this Creame another night; then put thereto at leaſt eight yolkes of Egges, a little Pepper, Cloues Mace, Saffron, Currants, Dates, Suger, Salt, and great ſtore of Swines ſuet, or for want thereof, great ſtore of Beefe ſuet, and then fill it vp in the Farmes according vnto the order of good Houſe-wifery; and then boile them on a ſoft and gentle fire, and as they ſwel, pricke them with a great pin,

or

or ſmal Awle, to keepe them that they burſt not; and when you ſerue them to the Table (which muſt be not vntil they be a day old,) firſt, boile them a little, then take them out and toaſt them browne before the fire, & ſo ſerue them, trimming the edge of the diſh eyther with ſalt or Suger.

Puddings of a Hogs Liuer.

Take the Liuer of a fat Hogge, and parboile it, then ſhred it ſmal, and after beate it in a morter very fine; then mixe it with the thickeſt and ſweeteſt Creame, and ſtrayne it very wel through an ordinary ſtrainer, then put thereto ſix yolkes of egges, and two whites, and the grated crummes of neere-hand a penny white loafe, with good ſtore of *Currants*, *Dates*, *Cloues*, *Mace*, *Sugar*, *Saffron*, *Salt*, and the beſt *Swine* ſuet, or *Beefe* ſuet, but *Beefe* ſuet is the more wholſome, and leſſe looſning; then after it hath ſtood a while, fil it into the Farmes, & boile them, as before ſhewed: and when you ſerue them vnto the table, firſt, boile them a little, then lay them on a Gridyron ouer the coales, and broile them geutly, but ſcorch them not, nor in any wiſe breake their skinnes, which is to be preuented by oft turning and toſſing them on the Gridyron, and keeping a ſlow fire.

To make bread puddings.

Take the yolkes and Whites of a dozen or fourteene egges, and hauing beate them very wel, put vnto them the fine pouder of *Cloues*, *Mace*, *Nutmegges*, *Sugar*, *Cynamon*, *Saffron* and *Salt*; then take the quantity of two loaues of white grated Bread, *Dates* (very ſmal ſhred) and great ſtore of *Currants*, with good plenty eyther of *Sheepes*, *Hogges*, or *Beefe* ſuet beaten and cut ſmal: then when all is mixt and ſtirred wel together, & hath ſtood a while to ſettle, then fil it into the Farmes as hath been before ſhewed, and in like manner boyle them,

them, cooke them, and ſerue them to the Table.

Rice Puddings. Take halfe a pound of Rice, and ſteepe it in new Milke a whole night, and in the morning draine it, and let the Milke drop away: then take a quart of the beſt, ſweeteſt and thickeſt Creame, and put the Rice into it, and boyle it a little; then ſet it to coole an houre or two, and after put in the Yolke, of halfe a dozen Egges, a little Pepper, Cloues, Mace, Currants, Dates, Sugar and Salt; and hauing mixt them well together, put in great ſtore of Beefe Suet well beaten, and ſmall ſhred, and ſo put it into the farmes, and boyle them as before ſhewed, and ſerue them after a day old.

Another of Liuer. Take the beſt Hogges Liuer you can get, and boyle it extreamely till it bee as hard as a ſtone; then lay it to coole, and being cold, vpon a bread-grater grate it all to powder; then ſift it through a fine meale-ſiue, and put to it the crummes of (at leaſt) two penny loaues of white bread, and boyle all in the thickeſt and ſweeteſt Creame you haue till it be very thick; then let it coole, and put it to the yolkes of halfe a dozen Egges, a little Pepper, Cloues, Mace, Currants, Dates ſmall ſhred, Cinamon, Ginger, a little Nutmeg, good ſtore of Sugar, a little Saffron, Salt, and of Beefe and Swines ſuet great plenty, then fill it into the Farmes, & boyle them as before ſhewed.

Puddings of a Calues Mugget. Take a Calues Mugget, cleane and ſweete dreſt, and boyle it well; then ſhred it as ſmall as is poſſible, then take of Strawberry leaues, of Endiue, Spinage, Succory, and Sarnell of each a pretty quantity, and chop them as ſmall as is poſſible; and then mixe them with the Mugget; then take the Yolkes of halfe a dozen Egges, and three Whites, and beate them into it

it alſo; and if you find it is too ſtiffe, then make it thinner with a little Creame warmed on the fire; then put in a little Pepper, Cloues, Mace, Cynamon, Ginger, Sugar, Currants, Dates and Salt, and worke all togeather, with caſting in little peyres of ſweet Butter one after an other, till it haue receiued good ſtore of Butter, then put it vp into the Calues bagge, Sheepes bagge, or Hogs bagge, and then boyle it well, and ſo ſerue it vp.

A Blood Pudding.

Take the Blood of an Hogge whileſt it is warme, and ſteepe it in a quarte, or more, of great Oate meale-grotes, and at the ende of three dayes with your hands take the Groats out of the bloud, and draine them cleane; then put to thoſe Grotes more then a quart of the beſt creame warmd on the fire: then take mother of Time, Parſley, Spinnage, Succory, Endiue, Sorrell and Strawberry leaues, of each a few chopt exceeding ſmall, and mixe them with the Grotes; and alſo a little Fennell ſeede finely beaten: then adde a little Pepper, Cloues and Mace, Salt and great ſtore of ſuet finely ſhred, and well beaten: then therewith fill your Farmes, and boyle them, as hath beene before deſcribed.

Linkes.

Take the largeſt of your chines of Porke, and that which is called a Liſte, and firſt with your knife cut the leane thereof into thinne ſlices, and then ſhred ſmall thoſe ſlices, and then ſpread it ouer the bottome of a diſh or wodden platter: then take the fatte of the chine and the Liſte, and cut it in the very ſelfe ſame manner, and ſpread it vpon the leane, and then cut more leane, and ſpread it vppon the fatte, and thus doe one leane vpon another, till all the Porke be ſhred, obſeruing to beginne and ende with the leane: then with your ſharpe knife ſcorch it through

through and through diuers wayes, and mixe it all well together: then take good ſtore of Sage, and ſhred it exceeding ſmall, and mixe it with the fleſh, then giue it a good ſeaſon of Pepper and Salt; then take the farmes made as long as is poſſible, and not cut in pieces as for Puddings, and firſt blow them well to make the meate ſlip, and then fill them: which done, with threads deuide them into ſeuerall linkes as you pleaſe, then hang them vp in the corner of ſome Chimney cleane kept, where they may take ayre of the fire, and let them drie there at leaſt foure dayes before any bee eaten; and when they are ſerued vp, let them bee either fried or broyled on the Gridyron, or elſe roaſted about a Capon.

OF Boyld meates ordinary.

It reſteth now that we ſpeake of boild meates and broths, which for aſmuch as our Houſ-wife is intended to be generall, one that can as well feed the poore as the rich, we will firſt begin with thoſe ordinary wholeſom boyld meates, which are of vſe in euery good mans houſe: therefore to make the beſt ordinary Pottage, you ſhall take a racke of Mutton cut into pieces, or a leg of Mutton cut into pieces; for this meate and theſe ioynts are the beſt, although any other ioynt, or any freſh Beefe will likewiſe make good Pottage: and hauing waſht your meate well, put it into a cleane pot with faire water, & ſet it on the fire; then take *Violet* leaues, *Succory*, *Strawberry* leaues, *Spinage*, *Langdebeefe*, *Marigold* flowers, *Scallions*, and a little *Parſly*, and chop them very ſmall together, then take halfe ſo much oatmeale well beaten as there is Hearbs, and mixe it with the Hearbs, and chop all very well together: then when the pot is ready to boyle, skum it very well, and then put in your hearbs, and ſo let it boyle with a quicke fire,

fire, ſtirring the meate oft in the pot, till the meate be boyld enough, and that the hearbs and water are mixt together without any ſeparation, which will be after the conſumption of more then a third part: Then ſeaſon them with Salt, and ſerue them vp with the meate either with Sippets or without.

Some deſire to haue their Pottage geene, yet no hearbs to be ſeen in this caſe: you muſt take your herbs and Oat-meale, and after it is chopt, put it into a ſtone Morter, or Bowle, and with a wooden peſtell beate it exceedingly; then with ſome of the warme liquor in the pot ſtrayne it as hard as may be, and ſo put it in and boyle it. Pottage without ſight of hearbs.

Others deſire to haue Pottage without any hearbs at all, and then you muſt only take Oat-meale beaten, and good ſtore of Onions, and put them in, and boyle them together; and thus doing you muſt take a greater quantity of Oat-meale then before. Pottage without hearbs.

If you will make Pottage of the beſt and daintieſt kind, you ſhall take Mutton, Veale or Kidde, & hauing broke the bones, but not cut the fleſh in pieces, and waſh it, put it into a pot with faire water, after it is ready to boyle, and is throughly skumd, you ſhall put in a good handfull or two of ſmall Oat-meale: and then take whole lettice of the beſt and moſt inward leaues, whole ſpinage, endiue, ſuccory, and whole leaues of col-flower, or the inward partes of white cabage, with two or three ſlic't Onions; and put all into the pot and boyle them well together till the meate bee enough, and the hearbes ſo ſoft as may bee, and ſtirre them oft well together; and then ſeaſon it with ſalt and as much verjuyce as will onely turne the taſt of the pottage; and ſo ſerue them vp, couering the meate with the whole Pottage with whole hearbs.

whole hearbes, and adorning the diſh with ſippets.

To make ordinary ſtewd broth.

To make ordinary ſtewd broth, you ſhall take a necke of veale, or a leg, or mary-bones of beefe, or a pullet, or mutton, and after the meate is waſht, put it into a pot with faire water, and being ready to boyle, skumme it well: then you ſhall take a couple of manchets, and paring away the cruſt, cut it into thicke ſlices, and lay them in a diſh, and couer them with hot broth out of the pot: when they are ſteept, put them and ſome of the broth into a ſtrainer, and ſtraine it, and then put it into the pot: then take halfe a pound of Prunes, halfe a pound of Raiſins, and a quarter of a pound of Currants cleane pickt and waſht, with a little whole Mace, and two or three bruiſed cloues, and put them into the pot, and ſtirre all well together, and ſo let them boyle till the meate be enough, then if you will alter the colour of the broth, put in a little Turneſole, or red Saunders, and ſo ſerue it vpon ſippits, and the fruite vppermoſt.

A fine boyld meate.

To make an excellent boyled meate: take foure peeces of a racke of mutton, and waſh them cleane, and put them into a pot well ſcowred with faire water: then take a good quantity of Wine and Veriuyce and put into it: then ſlice a handfull of Onions and put them in alſo, and ſo let them boyle a good while, then take a peece of ſweete butter with ginger and ſalt and put it to alſo, and then make the broth thicke with grated bread, and ſo ſerue it vp with ſippets.

To boyle a Mallard.

To boyle a *Mallard* curiouſly, take the *Mallard* when it is faire dreſſed, waſhed and truſt, and put it on a ſpit and roſt it till you can get the grauy out of it: then take it from the ſpit and boyle it, then take the beſt of the broth into a Pipkin, and the grauy which you

you ſtued, with a peece of ſweete butter and Currants, Vinegar, Sugar, Pepper and grated bread: Thus boyle all theſe together, and when the Mallard is boyled ſufficiently, lay it on a diſh with ſippets, and the broth vpon it, and ſo ſerue it foorth.

To make an excellent *Olepotrige*, which is the onely principall diſh of boild meate which is eſteemed in all *Spaine*, you ſhall take a very large veſſell, pot or kettell, and filling it with water, you ſhall ſet it on the fire, and firſt put in good thicke gobbets of well fed Beefe, and being ready to boyle, ſkumme your pot; when the Beefe is halfe boyled, you ſhall put in Potato-rootes, Turneps, and Skirrets: alſo like gobbets of the beſt Mutton, and the beſt Porke; after they haue boyled a while, you ſhall put in the like gobbets of Veniſon, red, and Fallow, if you haue them; then the like gobbets, of Veale, Kidde, and Lambe; a little ſpace after theſe, the foreparts of a fat Pigge, and a crambd Pullet; then put in Spinage, Endiue, Succory, Marigold leaues and flowers, Lettice, Violet leaues, Strawberry leaues, Bugloſſe and Scallions, all whole and vnchopt; then when they haue boyled a while; put in a Partridge and a Chicken chopt in peeces, with Quailes, Raiſes, Blackbirds, Larkes, Sparrowes and other ſmall birds, all being well and tenderly boiled, ſeaſon vp the broth with good ſtore of Sugar, Cloues, Mace, Cinamon, Ginger and Nutmegge mixt together in a good quantity of Verjuyce and ſalt, and ſo ſtirre vp the pot well from the bottome, then diſh it vp vpon great Chargers, or long Spaniſh diſhes made in the faſhion of our Engliſh wooden trayes, with good ſtore of ſippets in the bottome; then couer the meate all ouer with Prunes, Raiſins, Currants, and blaunch't Almonds,

To make an excellent Olepotrige.

Almonds, boyled in a thing by themselues; then couer the fruit and the whole boiled hearbs, and the herbes with slices of Orenges and Lemmons, and lay the rootes round about the sides of the dish, and strew good store of Sugar ouer all, and so serue it foorth.

To make the best white broth.

To make the best white broth, whether it be with Veale, Capon, Chickins, or any other Fowle or Fish: First boile the flesh or fish by it selfe, then take the value of a quart of strong mutton broth, or fat Kidde broth, and put it into a pipkin by it selfe, and put into it a bunch of Time, Morieromo, Spinage and Endiue bound together; then when it seeths put in a pretty quantity of Beefe marrow, and the marrow of Mutton, with some whole Mace and a few bruised Cloues; then put in a pint of White-wine with a few whole slices of Ginger; after these haue boyled a while together, take blaunch't Almonds, and hauing beaten them together in a morter with some of the broth, straine them and put it in also; then in another pipkin boile Currants, Prunes, Raisins, and whole Cinamon in veriuice and Sugar, with a few sliced Dates, and boile them till the veriuice bee most part consumed, or at least come to a syrrup; then draine the fruit from the sirrup, and if you see it be high coloured; make it white with sweete creame warmed, and so mixe it with your wine broth; then take out the Capon or the other Flesh or Fish, and dish it vp drie in a dish; then powre the broth vpon it, and lay the fruite on the top of the meate, and adorne the side of the dish with very dainty sippets; first *Orenges*, *Lemmons*, and *Sugar*, and so serue it foorth to the table.

To

To boile any wild *Fowle*, as *Mallard*, *Teale*, *Widgeon*, or such like: First boile the Fowle by it selfe, then take a quart of strong *Mutton*-broth, and put it into a pipkin, and boile it; then put into it good store of sliced *Onions*, a bunch of sweete pot-hearbs, and a lump of sweete butter; after it hath boiled well, season it with verjuice, salt and sugar, and a little whole Pepper, which done, take vp your Fowle and breake it vp according to the fashion of caruing, and stick a few *Cloues* about it; then put it into the broth with *Onions*, and there let it take a boyle or two, and so serue it and the broth foorth vpon sippets, some vse to thicken it with toasts of bread steept and strained, but that is as please the Cooke. To boile any wilde Fowle.

To boile a legge of *Mutton*, or any other ioynt of meate whatsoeuer; first after you haue washt it cleane, parboile it a little, then spit it and giue it halfe a dozen turnes before the fire, then draw it when it beginnes to drop, and presse it betweene two dishes, and saue the grauy, then slash it with your knife, and giue it halfe a dozen turnes more, and then presse it againe, and thus doe as often as you can force any moisture to come from it; then mixing *Mutton*-broth, White-wine, and Verjuice together, boyle the *Mutton* therein till it bee tender, and that most part of the liquor is cleane consumed; then hauing all that while kept the grauy you tooke from the *Mutton*, stewing gently vppon a Chaffing-dish and coales, you shall adde vnto it good store of salt; sugar, cinamon and ginger, with some Lemmon-slices, and a little of an Oringe pill, with a few fine white-bread crums: then taking vp the *Mutton*, put the remainder of the broth in, and put in likewise the grauie, To boile a legge of Mutton.

and then ſerue it vp with ſippets, laying the *Lemmon* ſlices vppermoſt, and trimming the diſh about with *Sugar*.

An excellent way to boyle Chickens.

If you will boile *Chickens*, young *Turkies*, *Pea-hens*, or any houſe-fowle daintily, you ſhall after you haue trimmed them, drawne them, truſt them, and waſhe them, fill their bellies as full of *Parſly* as they can hold; then boyle them with ſalt and water onely till they bee enough: then take a diſh and put into it verjuice, and *Butter*, and *Salt*, and when the *Butter* is melted, take the *Parſly* out of the *Chickens* bellies, and mince it very ſmall, and put it to the verjuice and *Butter*, and ſtirre it well together; then lay in the *Chickens*, and trimme the diſh with ſippets, and ſo ſerue it foorth.

A broth for any freſh Fiſh.

If you will make broth for any freſh fiſh whatſoeuer, whether it be Pike, Breame, Carpe, Eele, Barbell or ſuch like: you ſhall boile water, verjuice and *Salt* together with a handfull of ſliced *Onions*; then you ſhall thicken it with two or three ſpoonefull of Ale-barme; then put in a good quantity of whole *Barberies*, both branches and other, as alſo pretty ſtore of *Currants*: then when it is boild enough, diſh vp your *Fiſh*, and powre your broth vnto it, laying the fruite and *Onions* vppermoſt. Some to this broth, will put *Prunes*, and *Dates* ſlic't, but it is according to the fancy of the Cooke, or the will of the Houſe-holder.

Thus haue from theſe few preſidents ſhewed you the true Art and making of all ſorts of boild meates, and broths; and though men may coine ſtrange names, and faine ſtrange Art, yet be aſſured ſhe that can doe theſe, may make any other whatſoeuer, altering the taſte by the alteration of the compounds as ſhee ſhall ſee

occaſion

occaſion: And when a broth is too ſweete, to ſharpen it with veriuyce, when too tart, to ſweeten it with ſugar: when flat and wallowiſh, to quicken it with Orenges and Lemmons; and when too bitter, to make it pleaſant with hearbes and ſpices.

Additions, To boyle meates. A Mallard or Hare, or olde Cony.

Take a Mallard when it is cleane dreſſed, waſhed and truſt, and parboyle it in water till it be skumd and purified: then take it vp, and put it into a Pipkin with the necke downeward, and the tayle vpward, ſtanding as it were vpright: then fill the Pipkin halfe full with that water, in which the Mallard was parboyld, and fill vp the other halfe with White Wine: then pill and ſlice thin a good quantite of Onyons, and put them in with whole fine hearbes, according to the time of the yeare, as Lettice, Strawberry-leaues, Violet-leaues, Vine-leaues, Spinage, Endiue, Suscory, and ſuch like, which haue no bitter or hard taſte, and a pretty quantity of Currants and Dates ſliced: then couer it cloſe, and ſet it on a gentle fire, and let it ſtew, and ſmoare till the Hearbs and Onyons be ſoft, and the Mallard inough: then take out the Mallard, and carue it as it were to goe to the Table; then to the Broth put a good lumpe of Butter, Sugar, Cinamon, and if it be in ſummer, ſo many Gooſe-berries as will giue it a ſharpe taſte, but in the winter as much wine Vinegar, then heate it on the fire, and ſtirre all well together: then lay the Mallard in a diſh with ſippets, and powre all this broth vpon it, then trim the edge of the diſh with Sugar, and ſo ſerue it vp. And in this manner you may alſo ſmoare the hinder parts of a Hare, or a whole olde Cony, being truſt vp cloſe together.

To ſtew a pike.

After your Pike is dreſt and opened in the backe, and layd flat, as if it were to fry, then lay it in a large diſh

for the purpoſe, able to receiue it; then put as much White Wine to it as will couer it all ouer; then ſet it on a chaffin-diſh and coales to boyle very gently, and if any skum ariſe, take it away; then put to it Currants, Sugar, Cynamon, Barbery-berries, and as many Prunes as will ſerue to garniſh the diſh; then couer it cloſe with another diſh, and let it ſtew till the fruit be ſoft, and the Pike enough; then put to it a good lumpe of ſweet Butter; then with a fine skummer take vp the fiſh and lay it in a cleane diſh with Sippets, then take a couple of yolks of egges, the filme taken away, and beate them well together with a ſpoonefull or two of Creame, and aſſoone as the Pike is taken out, put it into the broth, and ſtirre it exceedingly to keepe it from curding; then powre the broth vpon the Pike, and trim the ſides of the diſh with Sugar, Prunes, and Barberies, ſlices of Orenges or Lemmons, and ſo ſerue it vp. And thus may you alſo ſtew Rochets, Gurnets, or almoſt any ſea-fiſh, or freſh-fiſh.

To ſtew a Lambes head & Purtenance.

Take a Lambs-head and Purtenance cleane waſht & pickt and put it into a Pipkin with faire water, and let it boile and skumme it cleane; then put in *Currants* and a few ſliced Dates, and a bunch of the beſt fercing hearbs tyed vp together, and ſo let it boyle well till the meate be enough: then take vp the Lambes head and purtenance, and put it into a cleane diſh with Sippets; then put in a good lumpe of Butter, and beate the yolkes of two Egges with a little Creame, and put it to the broth with Sugar, Cynamon, and a ſpoonefull or two of Verduyce, and whole Mace, and as many Prunes as will garniſh the diſh, which ſhould be put in when it is but halfe boyld, and ſo powre it vpon the Lambes-head and Purtenance, and adorne the ſides of the

diſh

diſh with Sugar, Prunes, Barberries, Orenges, and Lemons, and in no caſe forget not to ſeaſon well with Salt, and ſo ſerue it vp.

A Breſt of Mutton ſtewd.

Take a very good breaſt of Mutton chopt into ſundry large pieces, and when it is cleane waſht, put it into a pipkin with faire water, and ſet it on the fire to boyle; then skum it very well, then put in of the fineſt Parſneps cut into large pieces as long as ones hand, and cleane waſht and ſcrapt; then good ſtore of the beſt onions, & all manner of ſweet pleaſant Pot-hearbs and *lettice*, all groſſely chopt, and good ſtore of *peper* & *ſalt*, and then couer it, and let it ſtew till the Mutton be enough; then take vp the Mutton, and lay it in a cleane diſh with Sippets, and to the broath put a little Wine-vinegar, and ſo powre it on the Mutton with the Parſneps whole, and adorne the ſides of the diſh with Sugar, and ſo ſerue it vp: and as you doe with the Breſt, ſo you may doe with any other ſoynt of Mutton.

To ſtew a Neates foote.

Take a Neates foot that is very well boyld (for the tenderer it is, the better it is) & cleaue it in two, and with a cleane cloth dry it well from the Souſ-drinke; then lay it in a deepe earthen platter, and couer it with Verdiuyce; then ſet it on a chaffing-diſh and coales, and put to it a few Currants, and as many Prunes as will garniſh the diſh; then couer it, and let it boile well, many times ſtirring it vp with your knife, for feare it ſticke to the bottome of the diſh; then when it is ſufficiently ſtewed, which will appeare by the tenderneſſe of the meate and ſoftneſſe of the fruite; then put in a good lumpe of Butter, great ſtore of Sugar and Sinamon, and let it boile a little after: then put it altogether into a cleane diſh with Sippets, and adorne the ſides of the diſh with Sugar and Prunes, and ſo ſerue it vp.

OF Roast-meates.

To proceede then to roast meates, it is to be vnderstood, that in the generall knowledge thereof are to be obserued these few rules. First, the cleanely keeping & scowring of the spits and cobirons; next, the neate picking and washing of meate before it be spitted, then the spitting and broaching of meate which must bee done so strongly and firmely, that the meate may by no meanes either shrinke from the spit, or else turne about the spit: and yet euer to obserue, that the spit doe not goe through any principall part of the meate, but such as is of least account and estimation: and if it be birds or fowle which you spit, then to let the spit goe through the hollow of the body of the Fowle, and so fasten it with prickes or skewers vnder the wings about the thighes of the Fowle, and at the feete or rumpe, according to your manner of trussing and dressing them.

Obseruations in roast-meats.

Spitting of roast-meates.

Then to know the temperatures of fires for euery meate, and which must haue a slow fire, yet a good one, taking leasure in roasting, as Chines of Beefe, *Swannes*, *Turkies*, *Peacocks*, *Bustards*, and generally any great large Fowle, or any other ioynts of Mutton, Veale, Porke, Kidde, Lambe, or such like: whether it be Venison red, or Fallow, which indeed would lie long at the fire and soake well in the roasting, and which would haue a quick and sharpe fire without scorching; as *Pigs*, *Pullets*, *Pheasants*, *Partridge*, *Quaile*, and all sorts of middle sized or lesser fowle, and all small birds, or compound roast-meates, as *Oliues*, of Veale, Haslets; a pound of butter roasted; or puddings simple of themselues; and many other such like, which indeed would be suddenly and quickely dispatcht, because it is intended in Cookery, that one of these dishes must be made ready

Temperature of fire.

ready whilst the other is in eating. Then to knowe the complexions of meates, as which must bee pale and white roasted (yet thoroughly roasted) as Mutton, Veale, Lambe, Kid, *Capon*, *Pullet*, *Pheasant*, *Partridge*, *Quaile*, and all sorts of middle and small land, or water fowle, and all small birds, and which must be browne roasted, as Beefe, venison, Porke, Swanne, Geese, Pigges, Crane, Bustards, and any large fowle, or other thing whose flesh is blacke. The complexions of meate.

Then to know the best bastings for meate, which is sweete butter, sweete oyle, barreld butter, or fine rendred vp seame with *Cinamon*, *Cloues*, and *Mace*. There be some that will baste onely with water, and salt, and nothing else; yet it is but opinion, and that must be the worlds Master alwaies. The best bastings of meats.

Then the best dredging, which is either fine white bread crums, well grated, or els a little very fine white meale, and the crummes very well mixt together. The best dredging.

Lastly to know when meate is roasted enough; for as too much rawnes is vnholsome, so too much drinesse is not nourishing. Therefore to know when it is in the perfect height, and is neither too moist nor too dry, you shall obserue these signes first in your large ioynts of meate, when the stemme or smoake of the meate ascendeth, either vpright or els goeth from the fire, when it beginneth a little to shrinke from the spit, or when the grauy which droppeth from it is cleare without bloodinesse then is the meate enough. To know when meate is enough.

If it be a Pigge when the eyes are fallen out, and the body leaueth piping: for the first is when it is halfe rosted, and would be singed to make the coat rise and crackle, and the latter when it is fully enough and would bee drawne: or if it bee any kinde of Fowle you

you roſt, when the thighes are tender, or the hinder parts of the pinions at the ſetting on of the wings, are without blood: then bee ſure that your meate is fully enough roaſted: yet for a better and more certaine aſſuredneſſe, you may thruſt your knife into the thickeſt parts of the meate, and draw it out againe, and if it bring out white grauy without any bloodineſſe, then aſſuredly it is enough, and may bee drawne with all ſpeed conuenient, after it hath beene well baſted with butter not formerly melted, then dredged as aforeſaid, then baſted ouer the dredging, and ſo ſuffered to take two or three turnes, to make criſpe the dredging: Then diſh it in a faire diſh with ſalt ſprinckled ouer it, and ſo ſerue it forth. Thus you ſee the generall forme of roaſting all kind of meate: Therefore now I will returne to ſome particular diſhes, together with their ſeuerall ſawces.

Roaſting Mutton with Oyſters.

If you will roaſt Mutton with Oyſters, take a ſhoulder alone, or a legge, and after it is waſht, barboyle it a little: then take the greateſt Oyſters, and hauing opened them into a diſh, draine the grauy cleane from them twice or thrice, then parboyle them a little: Then take Spinage, Endiue, Succory, Strawberry leaues, Violet leaues, and a little Parſley, with ſome Scallions: chop theſe very ſmall together: Then take your Oyſters very dry, drain'd, and mixe them with an halfe part of theſe hearbes: Then take your meate, and with theſe Oyſters and hearbes farce or ſtop it, leauing no place empty, then ſpit it and roaſt it, and whilſt it is in roaſting, take good ſtore of Veriuice and Butter, and a little ſalt, and ſet it in a diſh or a chaffing-diſh and coales: and when it beginnes to boyle, put in the remainder of your hearbes without Oyſters, and a good quantity

quantity of Currants, with *Cinamon*, and the yelke of a couple of egges: And after they are well boyled and ſtirred together, ſeaſon it vp according to taſte with ſugar: then put in a few Lemmon ſlices, the meate being inough, draw it, and lay it vpon this ſawce remoued into a cleane diſh, the edge thereof being trimmed about with ſugar, and ſo ſerue it forth.

To roaſt a legge of Mutton after an out-landiſh faſhion, you ſhall take it after it is waſht, and cut off all the fleſh from the bone, leauing onely the outmoſt skinne entirely whole and faſt to the bone; then take thicke creame and the Yelkes of Egges, and beate them exceedingly well together; then put to *Cinamon*, *Mace*, and a little Nutmegge, with *Salt*, then take bread-crummes finely grated and ſearſt with good ſtore of Currants, and as you mixe them with the Creame, put in ſugar, and ſo make it into a good ſtiffnes: Now if you would haue it looke greene, put in the iuyce of ſweete hearbs, as *Spinage*, *violet* leaues, Endiue, &c. If you would haue it yellow, then put in a little Safforn ſtrayned, and with this fill vp the skin of your legge of Mutton in the ſame ſhape and forme that it was before, and ſticke the out ſide of the skin thicke with Cloues, and ſo roaſt it thorowly and baſte it very well, then after it is dredg'd ſerue it vp as a legge of Mutton with this pudding, for indeede it is no other: you may ſtop any other ioynt of meate, as breaſt or loine, or the belly of any Fowle boiled or roaſt, or rabbet, or any meate elſe which hath skinne or emptineſſe. If into this pudding alſo you beate the inward pith of an Oxes backe, it is both good in taſte, and excellent ſoueraigne for any diſeaſe, ach or fluxe in the raynes whatſoeuer.

To roaſt a legg of Mutton otherwiſe.

To

To roast a Gigget of mutton.

To roast a Gigget of Mutton, which is the legge splatted, and halfe part of the loine together, you shall after it is washt, stop it with Cloues, to spit it, and lay it to the fire, and tend it well with basting: Then you shall take vinegar, butter and currants, and set them on the fire in a dish or pipkin; then when it boyles, you shall put in sweete hearbes finely chopt, with the yelke of a couple of egges, and so let them boyle together: then the meate being halfe roasted, you shall pare off some part of the leaneſt and browneſt, then shred it very small and put it into the pipkin also: then season it vp with Sugar, Cynamon, Ginger, and Salt, and so put it into a cleane dish: Then drawe the Gigget of Mutton and lay it on the sauce, and throw salt on the top, and so serue it vp.

To roast Oliues of Veale.

You shall take a Legge of Veale, and cut the flesh from the bones, and cut it out into thin long slices, then take sweete hearbes, and the white parts of scallions, and chop them well together with the yelkes of egges, then rowle it vp within the slices of veale, and so spit them, and roast them: then boyle verjuice, butter, sugar, cynamon, currants and sweete hearbes together, and being seasoned with a little salt, serue the Oliues vp vpon that sauce with salt, cast ouer them.

To roast a pig.

To roast a Pigge curiously, you shall not scald it, but draw it with the haire on, then hauing washt it, spit it and lay it to the fire so as it may not scorch, then being a quarter roasted, and the skinne blistered from the flesh, with your hand pull away the haire and skin, and leaue all the fat and flesh perfectly bare: then with your knife scotch all the flesh downe to the bones, then baste it exceedingly with sweete butter and creame, being no more but warme: then dredge it with fine

fine bread crummes, currants, ſugar and ſalt mixt together, and thus apply dredging, vpon baſting, and baſting vpon dredging, till you haue couered all the fleſh a full inch deepe: Then the meate being fully roaſted, draw it, and ſerue it vp whole.

To roaſt a pound of Butter curiouſly and well, you ſhall take a pound of ſweete Butter and beate it ſtiffe with Sugar, and the yolkes of egges, then clap it roundwiſe about a ſpit, and lay it before a ſoft fire, and preſently dredge it with the dredging before appointed for the Pigge: then as it warmeth or melteth, ſo apply it with dredging till the butter be ouercomed and no more will melt to fall from it, then roaſt it browne, and ſo draw it, and ſerue it out, the diſh being as neatly trim'd with ſugar as may be. To roaſt a pound of butter well.

To roaſt a pudding vpon a ſpit, you ſhall mixe the pudding before ſpoken of in the legge of Mutton, neither omitting hearbes, nor ſaffron, and put to a little ſweete butter and mixe it very ſtiffe: then fold it about the ſpit, and haue ready in another diſh ſome of the ſame mixture well ſeaſoned, but a great deale thinner, and no butter at all in it, and when the pudding doth beginne to roaſt, and that the butter appeares, then with a ſpoone couer it all ouer with the thinner mixture, and ſo let it roaſt: then if you ſee no more butter appeare, then baſte it as you did the Pigge, and lay more of the mixture on, and ſo continue till all be ſpent: And then roaſt it browne, and ſo ſerue it vp. To roaſt a pudding on a ſpit.

If you will roaſt a chine of Beefe, a loyne of Mutton, a Capon, and a Larke, all at one inſtant, and at one fire, and haue all ready together and none burnt: you ſhall firſt take your chine of Beefe and parboyle it more then halfe through: Then firſt take your Capon, being large To roaſt a chine of Beefe, Loyne of Mutton, Larke, and Capon at one fire, and at one inſtant.

large and fat, and ſpit it next the hand of the turner, with the legges from the fire, then ſpit the chine of Beefe, then the Larke, and laſtly the loyne of Mutton, and place the Larke ſo as it may be couered ouer with the Beefe, and the fat part of the loyne of Mutton, without any part diſcloſed: Then baſte your Capon, and your loyne of Mutton with cold water and ſalt, the chine of Beefe with boyling Larde: Then when you ſee the beefe is almoſt enough, which you ſhall haſten by ſchotching and opening of it: then with a cleane cloth you ſhall wipe the Mutton and Capon all ouer, and then baſte it with ſweete butter till all be enough roaſted: then with your knife lay the Larke open which by this time will be ſtewed betweene the Beefe and Mutton, and baſting it alſo with dredge all together, draw them and ſerue them vp.

To roaſt Veniſon. If you will roaſt any Veniſon, after you haue waſht it, and cleanſed all the blood from it, you ſhall ſticke it with cloues all ouer on the out ſide; and if it be leane, you ſhall larde it either with mutton-larde, or porke-larde, but mutton is the beſt: then ſpit it and roaſt it by a ſoaking fire, then take Vinegar, bread-crummes, and ſome of the grauy, which comes from the veniſon, and boyle them well in a diſh: then ſeaſon it with ſugar, cinamon, ginger and ſalt, and ſerue the veniſon foorth vpon the ſauce when it is roaſted enough.

How to roaſt freſh Sturgeon If you will roaſt a peece of freſh Sturgeon, which is a dainty diſh, you ſhall ſtop it with cloues, then ſpit it, and let it roaſt at great leaſure, plying it continually with baſting, which will take away the hardneſſe: then when it is enough, you ſhall draw it, and ſerue it vpon veniſon ſauce with ſalt onely throwne vpon it.

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The roasting of all sorts of meates, differeth nothing but in the fires, speede and leasure as is afore sayd, except these compound dishes, of which I haue giuen you sufficient presidents, and by them you may performe any worke whatsoeuer: but for the ordering, preparing and trussing your meates for the spit or table, in that there is much difference: for in all ioynts of meate except a shoulder of Mutton, you shall crush and breake the bones well, from Pigges and Rabbets you shall cut off the fecte before you spit them, and the heads when you serue them to the table, and the Pigge you shall chine, and diuide into two parts: Capons, Pheasants, Chickens and Turkies you shall roast with the Pinions foulded vp, and the legges extended; Hennes, Stockdoues and House-doues, you shall roast with the pinions foulded vp, and the legges cut off by the knees, and thrust into the bodies: Quailes, Partridges, and all sorts of small birds shall haue their pinions cut away, and the legges extended: all sorts of Waterfowle shall haue their pinions cut away, and their legges turned backward: Wood-cockes, Snipes and Stints shall be roasted with their heads and neckes on, and their legges thrust into their bodies, and Shouelers and Bitterns shall haue no neckes but their heads onely. Ordering of meates to be roasted.

Take a Cowes vdder, and first boyle it well: then sticke it thicke all ouer with Cloues: then when it is cold, spit it, and lay it to the fire, and apply it very well with basting of sweete Butter, and when it is sufficiently roasted, and browne, then dredge it, and draw it from the fire, take vinegar and butter, and put it on a Chaffing-dish and coales, and boyle it with White-bread crummes, till it be thick; then put to it good store of To roast a Cowes Vdder.

of Sugar and Cynamon, and putting it in a cleane dish. lay the Cowes Vdder therein, and trimme the sides of the dish with sugar, and so serue it vp.

To roast a fillet of Veale.

Take an excellent good legge of Veale, and cut the thicke part thereof a handfull and more from the Knuckle: then take the thicke part (which is the fillet) and fierce it in euery part all ouer with Strawberry-leaues, Violet-leaues, Sorrell, Spinage, Endiue and Succorie grossely chopt together, and good store of Onyons: then lay it to the fire and roast it very sufficiently and browne, casting good store of salt vpon it, and basting it well with sweete Butter: then take of the former hearbes much finer chopt then they were for fiercing, and put them into a Pipkin with Vinegar, and cleane washt Currants, and boyle them well together: then when the hearbes are sufficiently boyld and soft, take the yelkes of foure very hard boyld Egges, and shred them very small, and put them into the Pipkin also with Sugar and Cynamon, and some of the gruin which drops from the veale, and boyle it ouer againe, and then put it into a cleane dish, and the Fillet beeing dredgd and drawne, lay vpon it, and trimme the side of the dish with Sugar, and so serue it vp.

OF Sauces, and first for a rost Capon or Turkey.

To make an excellent sauce for a rost Capon, you shall take Onyons, and hauing sliced and pilled them, boyle them in faire water with pepper, salt, and a few bread-crummes: then put vnto it a spoonfull or two of Claret wine, the iuyce of an Orenge, and three or foure slices of a Lemmon pill; all these shred together, and so powre it vpon the Capon being broake vp.

Sauce for a hen or Pullet.

To make sauce for an old Hen or Pullet, take a good quantity of beere and salt, and mixe them well together with a few fine bread-crummes, and boyle them

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on a chaffing diſh and coales, then take the yelkes of three or foure hard Egges, and being ſhred ſmall, put it to the Beere, and boyle it alſo: then the Hen being almoſt enough, take three or foure ſpoonefull of the graſy which comes from her and put it in alſo, and boyle all together to an indifferent thickneſſe: which done, ſuffer it to boyle no more, but onely keepe it warme on the fire, and put into it the iuyce of two or three orenges, and the ſlices of Lemmon pils ſhred ſmall, and the ſlices of orenges alſo hauing the vpper rine taken away: then the Henne beeing broken vp, take the brawnes thereof, and ſhredding them ſmall, put it into the ſauce alſo, and ſtirring all well together, put it hot into a cleane warme diſh, and lay the Henne (broke vp) in the ſame.

The ſauce for Chickins is diuers, according to mens taſtes: for ſome will onely haue butter, Veriuice, and a little Parſley rolled in their bellies mixt together; others will haue Butter, veriuice and Sugar boild together with toaſts of bread: and others will haue thick ſippets with the iuyce of Sorrell and Sugar mixt together. Sauce for Chickins.

The beſt ſauce for a Phesant, is wrter and onions ſhift, Pepper and a little Salt mixt together, and but ſtewed vpon the coales, and then powred vpon the Phesant or Partridge being broken vp, and ſome will put thereto the iuyce or ſlices of of an orenge or lemmon, or both: but it is according to taſte, and indeed more proper for a Pheaſant then a Prtridge. Sauce for a pheaſant or partridge.

Sauce for a Quaile, Raile, or any fat big bird, is Claret wine and Salt mixt together with the graſy of the Bird, and a few fine bread-crummes well boild together, and either a Sage-leafe, or Bay-leafe cruſht among it according to mens taſts. Sauce for a Quaile. Raile, or big bird.

Sauce for pigeons.

The beſt ſauce for Pigeons, Stockdoues, or ſuch like, is Vinegar and Butter melted together, and Parſley roſted in the rebellies, or vine-leaues roſted and mixed well together.

A generall ſauce for wild Fowle.

The moſt generall ſauce for ordinary wild-fowle roſted, as Duckes, Mallard, Widgen, Teale, Snipe, Sheldrake, Plouers, Puers, Guls, and ſuch like, is onely muſtard and vinegar, or muſtard and veriuice mixt together, or elſe an onion, water and pepper, and ſome (eſpeciall in the Court) vſe only butter melted, and not with any thing elſe.

Sauce for Greene Geeſe.

The beſt ſauce for greene Geeſe is the iuyce of ſorrell and ſugar mixt together with a few ſcalded Feberries, and ſerued vpon ſippers, or elſe the belly of the greene Gooſe filde with Feberries, and ſo roſted, and then the ſame mixt with veriuyce, butter, ſugar and cynamon, and ſo ſerued vpon ſippets.

Sauce for a ſtuble gooſe.

The ſauce for a ſtuble Gooſe is diuerſe, according to mens minds, for ſome will take the pap of roſted apples, and mixing it with vinegar, boyle them together on the fire with ſome of the grauy of the Gooſe, and a few Barberies and bread crummes, and when it is boyld to a good thickneſſe, ſeaſon it with ſugar and a little cinamon, and ſo ſerue it vp: ſome will adde a little muſtard and onions vnto it, and ſome will not roſt the apples, but pare them and ſlice them, and that is the neerer way, but not the better. Others will fill the belly of the Gooſe full of Onions ſhred, and oate-meale groats, and being roſted enough, mixe it with the grauy of the Gooſe, and ſweete hearbs well boild together, and ſeaſoned with a little veriuyce.

A Gallatine, or Sauce for a Swan, Bitter,

To make a *Gallamine*, or ſauce for a Swan, Bitter, Shoueler, Heron, Crane, or any large foule, take the blood of the

the ſame fowle, and being ſtird well, boile it on the fire, then when it comes to be thecke, put vnto it *vinegar* a good quantity, with a few fine bread-crummes, and ſo boile it ouer againe: then being come to good thicknes, ſeaſon it with *Sugar* & *Cinamon*, ſo as it may taſte pretty and ſharpe vpon the *Cinamon*, and then ſerue it vp in ſaucers as you do *Muſtard*: for this is called a *chaudes* or *galiantine*, & is a ſauce almoſt for any foule whatſoeuer. Shoueler, or large Fowle.

To make ſauce for a Pigge, ſome take Sage and roaſt it in the belly of the Pigge, then boiling *verjuice*, *Butter* and *currants* together, take & chop the Sage ſmall, and mixing the braines of the Pig with it, put all together, and ſo ſerue it vp: Sauce for a pig.

To make a ſauce for a Ioynt of Veale, take all kind of ſweete Pot herbs, and chopping them very ſmall with the yelkes of two or three Eggs, boyle them in *vinegar* and *Butter*, with a few bread crummes, and good ſtore of *Currants*; then ſeaſon it with *Sugar* and *Cinamon*, and a *clowe* or two cruſht, and ſo powre it vppon the Veale, with the ſlices of *Orenges* and *Lemons* about the diſh. Sauce for Veale.

Take *Orenges* and ſlice them thin, and put vnto them *White wine* and *Roſe-water*, the pouder of *Mace*, *Ginger* and *ſugar*, and ſet the ſame vpon a chaffing diſh and coales, & when it is halfe boiled, put to it a good lump of *Butter*, and then lay good ſtore of ſippets of fine white bread therein, and ſo ſerue your Chickens vpon them, and trimme the ſides of the diſh with *Sugar*. Additions, vnto Sauces Sops for Chickens.

Take faire water and ſet it ouer the fire, then ſlice good ſtore of *Onions* and put into it, and alſo *Pepper* and *Salt*, and good ſtore of the graby that comes from the Turkie, and boyle them very well together: then put to it a few fine crummes of grated bread to thicken it; Sauce for a Turkie.

a very little Sugar and some vinegar, and so serue it vp with the Turkey: or otherwise, take grated white bread and boile it in White wine till it be thicke as a *Gallantine*, and in the boyling put in good store of Sugar and Cinamon, and then with a little *Turnesole* make it of a high Murrey colour, and so serue it in Saucers with the Turkey in the manner of a *Gallantine*.

The best Gallentine.

Take the blood of a Swan, or any other great Fowle, and put it into a dish, then take stewed Prunes and put them into a strainer, and straine them into the bloud, then set it on a chaffing-dish and coales, and let boyle, euer stirring it till it come to be thicke, and season it very well with Sugar and Cynamon, and so serue it in saucers with the Fowle, but this sauce must be serued cold.

Sauce for a Mallard.

Take good store of Onions, pill them, and slice them, and put them into vinegar, and boyle them very well till they be tender: then put into it a good lumpe of sweete butter, and season it well with Sugar and Cinamon, and so serue it vp with the Fowle.

OF Carbonados.

Charbonados, or Carbonados, which is meate broiled vpon the coales (and the inuention thereof first brought out of *France*, as appeares by the name) are of diuers kinds according to mens pleasures: for there is no meate either boiled or roasted whatsoeuer, but may afterwards be broiled, if the Maister thereof be disposed; yet the generall dishes for the most part which are vsed to be Carbonadoed, are a Breast of Mutton halfe boyled, a shoulder of Mutton halfe roasted, the Leggs, Winges, and Carkases of Capon, Turkey, Goose, or any other Fowle whatsoeuer, especially Land-Fowle.

What is to be Carbonadoed.

And lastly, the vttermost thicke skinne which couereth the ribbes of Beefe, and is called (being broyled)

broyled) the Inns of Court-Gooſe, and is indeed a diſh vſed moſt for wantonneſſe, ſometimes to pleaſe appetite: to which may alſo be added the broyling of Pigs heads, or the braines of any Fowle whatſoeuer after it is roaſted and dreſt.

The manner of Carbonadoing. Now for the manner of Carbonadoing, it is in this ſort; you ſhall firſt take the meate you muſt Carbonadoe, and ſcorch it both aboue and below, then ſprinkle good ſtore of *Salt* vpon it, and baſte it all ouer with ſweete *Butter* melted, which done, take your broiling-iron, I doe not meane a Grid-iron (thouhg it be much vſed for this purpoſe) becauſe the ſmoake of the coales, occaſioned by the dropping of the meate, will aſcend about it, and make it ſtinke; but a plate-Iron made with hookes and pricks, on which you may hang the meate, and ſet it cloſe before the fire, and ſo the Plate heating the meate behind, as the fire doth before, it will both the ſooner, and with more neateneſſe bee readie: then hauing turned it, and baſted it till it bee very browne, dredge it, and ſerue it vp with *Vinegar* and *Butter*.

Of the toaſting of Mutton. Touching the toaſting of Mutton, Veniſon, or any other Ioynt of meate, which is the moſt excellenteſt of all Carbonadoes, you ſhall take the fatteſt and largeſt that can poſſibly be got (for leane meate is loſſe of labour, and little meate not worth your time,) and hauing ſcorcht it, ane-caſt ſalt vpon it, you ſhall ſet it on a ſtrong forke, with a dripping pan vnderneath it, before the face of a quicke fire, yet ſo farre off, that it may by no meanes ſcorch, but toaſt at leaſure; then with that which falles from it, and with no other baſting, ſee that you baſte it continually, turning it euer and anon many times, and ſo oft, that it may ſoake and

browne at great leasure, and as oft as you baste it, so oft sprinkle Salt vpon it, and as you see it toast scorch it deeper and deeper, especially in the thickest and most fleshly parts where the blood most resteth: and when you see that no more blood droppeth from it, but the grauy is cleere and white; then shall you serue it vp either with venison sauce, or with vinegar, pepper and sugar, cynamon, and the iuyce of an orenge mixt together and warmed with some of the grauy.

Additions,

☞ Vnto Carbonados.

Take mutton or Lambe that hath bene either rosted, or but parboyld, and with your knife scotch it many wayes; then lay it in a deepe dish, and put to it a pint of white Wine, and a little whole mace, a little slic't nutmeg, and some sugar, with a lumpe of sweete butter, and stew it so till it it be very tender: then take it foorth, and browne it on the Grid-yron, and then laying sippets in the former broth serue it vp.

A rasher of mutton or lambe.

How to carbonado tongues.

Take any tongue, whether of Beefe, Mutton, Calues, red Deere or Fallow, and being well boyld, pill them, cleaue them, and scotch them many wayes; then take three or foure Egges broken, some Sugar, Cynamon and Nutmeg, and hauing beaten it well together, put to it a Lemon cut in thin slices, and another cleane pild, and cut into little foure-square bits, and then take the tongue and lay it in: and then hauing melted good store of butter in a frying-pan, put the tongue and the rest therein, and so fry it browne, and then dish it, and scrape sugar vpon it, and serue it vp.

Additions

☞ For dressing of Fish.

How to souce any fresh-fish.

Take any Fresh-fish whatsoeuer (a Pike, Breame, Carpe, Barbell, Cheain, and such like, and draw it, but scale it not; then take out the Liuer and the refuse, and hauing opened it, wash it; then take a pottle of faire water, a pretty quantity of white wine, good store of salt, and

and ſome vinegar, with a little bunch of ſweete hearbs, and ſet it on the fire, and as ſoone as it begins to boile, put in your fiſh, and hauing boild a little, take it vp into a faire veſſell, then put into the liquor ſome groſſe pepper and ginger, & when it is boild well together with more ſalt, ſet it by to coole, and then put your fiſh into it, and when you ſerue it vp, lay Fenell thereupon.

How to boyle ſmall Fiſh.

To boyle ſmall fiſh, as Roches, Daces, Gudgeon or Flounders, boyle White-wine and water together with a bunch of choiſe hearbs, and a little whole mace: when all is boyled well together, put in your fiſh, and skum it well: then put in the ſoale of a manchet, a good quantity of ſweet butter, and ſeaſon it with pepper and veriuice, and ſo ſerue it in vpon ſippets, and adorne the ſides of the diſh with ſugar.

To boyle a Gurnet or Rochet.

Firſt, draw your fiſh, and either ſplit it open in the backe, or ioynt it in the backe, and truſſe it round, then waſh it cleane, and boyle it in water and ſalt, with a bunch of ſweete hearbs: then take it vp into a large diſh, and powre vnto it veriuice, Nutmeg, Butter and Pepper, and letting it ſtew a little, thicken it with the yelkes of Egges: then hot remoue it into another diſh, and garniſh it with ſlices of Orenges and Lemons, Barberies, Prunes and Sugar, and ſo ſerue it vp.

How to bake a Carpe.

After you haue drawne, waſht and ſcalded a faire large Carpe, ſeaſon it with pepper, ſalt and Nutmeg, and then put it into a coffin with good ſtore of ſweete butter, and then caſt on Rayſins of the Sunne, the iuyce of Lemons, and ſome ſlices of orenge pils; and then ſprinkling on a little vinegar, cloſe vp and bake it.

How to bake a Tench.

Firſt, let your Tench blood in the tayle, then ſcoure it, waſh it, and ſcald it, then hauing dried it, take the fine crummes of bread, ſweete Creame, the yelkes of

Egges, Currants cleane washt, a few sweete hearbes chopt small, season it with Nutmegs and Pepper, and make it into a stiffe paste, and put it into the belly of the Tench: then season the fish on the outside with pepper, salt and Nutmeg, and so put it into a deepe coffin with sweete Butter, and so close vp the pye and bake it: then when it is enough, draw it, and open it, and put into it a good peece of preserued Orenge minst: then take Vinegar, Nutmeg, Butter, Sugar, and the yelke of a new-layd egge, and boyle it on a Chaffing-dish and coales, alwayes stirring it to keepe it from cur-ding; then powre it into the pye, shake it well, and so serue it vp.

How to stew a *Trout*.

Take a large Trout, faire trimd, and washt it, and put it into a deepe pewter dish, then take halfe a pint of sweete wine, with a lumpe of butter, and a little whole mace, parsley, sauory and time, mince them all small, and put them into the Trouts belly, and so let it stew a quarter of an houre: then minse the yelke of an hard Egge, strow it on the Trout, and laying the hearbs about it; and scraping on sugar, serue it vp.

How to bake *Eeles*.

After you haue drawne your Eeles, chop them into small peeces of three or foure inches, and season them with Pepper, Salt and Ginger, and so put them into a coffin with a good lumpe of butter, great Raysins, Onions small chopt, and so close it, bake it, and serue it vp.

OF

The pastery and baked meates.

Next to these already rehearsed, our *English House-wife* must be skilfull in pastery, and know how and in what manner to bake all sorts of meate, and what past is fit for euery meate, and how to handle and compound such pasts: As for example, red Deere venison, wilde Boare, Gammons of Bacon, Swans, Elkes, Porpus, and such like standing dishes, which must be kept long, wold

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be bak't in a moyſt, thicke, tough, courſe, & long laſting cruſt, and therefore of all other your Rye paſte it beſt for that purpoſe: your Turkie, Capon, Pheaſant, Partridge, Veale, Peacocks, Lambe, and all ſorts of waterfowle which are to come to the table more then once (yet not many dayes, would be back't in a good white cruſt, ſomewhat thick; therefore your Wheate is fit for them: your Chickens, Calues-feet, Oliues, Potatoes, Quinces, Fallow Deere and ſuch like, which are moſt commonly eaten hot, would be in the fineſt, ſhorteſt and thinneſt cruſt; therefore your fine wheat flower which is a little baked in the ouen before it be kneaded is the beſt for that purpoſe.

To ſpeake then of the mixture and kneading of paſts, you ſhall vnderſtand that your rye paſte would be kneaded onely with hot water and a little butter, or ſweete ſeame and Rye flower very finely ſifted, and it would be made tough & ſtiffe, that it may ſtand well in the riſing, for the coffin therof muſt euer be very deep; your courſe wheat cruſt would be kneaded with hot water, or Mutton broth, and good ſtore of butter, and the paſte made ſtiffe and tough, becauſe that coffin muſt be deepe alſo; your fine wheat cruſt muſt be kneaded with as much butter as water, and the paſt made reaſonable lythe and gentle, into which you muſt put three or foure egges or more, according to the quantity you blend together, for they will giue it a ſufficient ſtiffening. Of the mixture of paſts.

Now for the making of puffe paſt of the beſt kind, you ſhall take the fineſt wheat flowre after it hath bin a little back't in a pot in the ouen, and blend it well with egges whites and yelkes all together, and after the paſte is well kneaded, roule out a part thereof as thinne as you pleaſe, and then ſpread cold ſweete butter ouer the ſame, Of puffe paſt.

ſame, then vpon the ſame butter role another leafe of the paſte as before; and ſpread it with butter alſo, and thus role leafe vpon leafe with butter betweene till it be as thicke as you thinke good: and with it either couer any bak't meate, or make paſtie for Veniſon, Florentine, Tart'or what diſh elſe you pleaſe and ſo bake it: there be ſome that to this paſte vſe ſugar, but it is certaine it will hinder the riſing thereof; and therefore when your puft paſte is bak't, you ſhall diſſolue ſugar into Roſe-water, and drop it into the paſte as much as it will by any meanes receiue, and then ſet it a little while in the ouen after and it will be ſweete enough.

Of baking Red Deere, or Fallow, or any thing to keepe cold.

When you bake red Deere, you ſhall firſt parboile it and take out the bones, then you ſhall if it be leane larde it, if fat ſauce the charge, then put it into a preſſe to ſqueſe out the blood; then for a night lay it in a meare ſauce made of Vinegar, ſmall drinke and ſalt, and then taking it forth, ſeaſon it well with Pepper finely beaten, and ſalt well mixt together, and ſee that you lay good ſtore thereof, both vpon and in euery open and hollow place of the Veniſon; but by no meanes cut any ſlaſhes to put in the Pepper, for it will of it ſelfe ſinke faſt enough into the fleſh, and be more pleaſant in the eating: then hauing raiſed the coffin, lay in the bottome a thicke courſe of butter, then lay the fleſh thereon and couer it all ouer with butter, and ſo bake as much as if you did bake great browne bread; then when you draw it, melt more butter with three or foure ſpoonefull of Vinegar, and twice ſo much Claret wine, and at a vent hole on the toppe of the lidde powre in the ſame till it can receiue no more, and ſo let it ſtand and coole; and in this ſort you may bake Fallow-Deere, or Swanne, or whatſoeuer elſe you pleaſe

pleaſe to keepe cold, the meare ſauce onely being left out which is onely proper to red Deere: And if to your meare ſauce you adde a little Turneſole, and therein ſteepe beefe, or Ramme mutton: you may alſo in the ſame manner take the firſt for Red Deere Veniſon, and the latter for Fallow, and a very good iudgement ſhall not be able to ſay otherwiſe, then that it is of it ſelfe perfect Veniſon, both in taſte, colour, and the manner of cutting. To bake beefe or mutton for Veniſon.

To bake an excellent Cuſtard or Dowſet: you ſhall take good ſtore of egges, and putting away one quarter of the whites, beate them exceeding well in a baſon, and then mixe with them the ſweeteſt and thickeſt creame you can get, for if it be any thing thinne, the Cuſtard will be wheyiſh: then ſeaſon it with ſalt, ſugar, cinamon, cloues, mace, and a little Nutmegge: which done raiſe your coffins of good tough wheate paſte, being the ſecond ſort before ſpoke of, and if you pleaſe raiſe it in pretty workes, or angular formes, which you may doe by fixing the vpper part of the cruſt to the nether with the yelks of egges: then when the coffins are ready, ſtrow the bottomes a good thickneſſe ouer with Currants and Sugar, then ſet them into the Ouen, and fill them vp with the confection before blended, and ſo drawing them, adorne all the toppes with Carraway Cumfets, and the ſlices of Dates pickt right vp, and ſo ſerue them vp to the table. To preuent the wheyiſhnes of the Cuſtard, diſſolue into the firſt confection a little Iſſinglaſſe and all will be firme. To bake a Cuſtard or Dowſet.

To make an excellent Oliue-pie: take ſweete hearbs as Violet leaues, Strawberry leaues, Spinage, Succory, Endiue, Time and Sorrell, and chop them as ſmall as may be, and if there be a Scallion or two amongſt them it To bake an Oliue-pye.

it will giue the better taſte, then take the yelks of hard egges with Currants, Cinamon, Cloues and Mace, and and chop them amongſt the hearbs alſo; then hauing cut out long oliues of a legge of Veale, roule vp more then three parts of the hearbs ſo mixed within the Oliues, together with a good deale of ſweet butter; then hauing raiſed your cruſt of the fineſt and beſt paſte, ſtrow in the bottome the remainder of the hearbs, with a few great Raiſins hauing the ſtones pickt out: then put in the Oliues and couer them with great Raiſins and a few Prunes: then ouer all lay good ſtore of *Butter* and ſo bake them: then being ſufficiently bak't, take Claret wine, Sugar, Cinamon, and two or three ſpoonefull of wine Vinegar and boile them together, and then drawing the pie, at a vent in the top of the lid put in the ſame, and then ſet it into the Ouen againe a little ſpace, and ſo ſerue it forth.

To make a Marrow bone pye.

To bake the beſt Marrow-bone pye, after you haue mixt the cruſts of the beſt ſort of paſtes, and raiſed the coffin in ſuch manner as you pleaſe: you ſhall firſt in the bottome thereof lay a courſe of marrow of Beefe mixt with Currants: then vpon it a lay of the ſoales of Artichokes, after they haue beene boiled, and are diuided from the thiſtle: then couer them ouer with marrow, Currants, and great Raiſins, the ſtones pickt out: then lay a courſe of Potatoes cut in thicke ſlices, after they haue beene boiled ſoft, and are cleane pild: then couer them with marrow, Currants, great Raiſins, Sugar and Cinamon: then lay a layer of candied Eringo-rootes mixt very thicke with the ſlices of Dates: then couer it with marrow, Currants, great Raiſins, Sugar, Cinamon and Dates, with a few Damaske-prunes, and ſo bake it: and after it is bakt powre into it as long as

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it will receiue it white-wine, roſe-water, ſugar, cinamon, and vinegar, mixt together, and candie all the couer with roſe-water and ſugar onely, and ſo ſet it into the ouen a little, and after ſerue it forth.

To bake a chicken-pie, after you haue truſt your chickens, broken their legges and breaſt-bones, and raiſed your cruſt of the beſt paſte, you ſhall lay them in the coffin cloſe together with their bodies full of butter: then lay vpon them, and vnderneath them currants, great raiſins, prunes, cinamon, ſugar, whole mace and ſalt: then couer all with great ſtore of butter, and ſo bake it; after powre into it the ſame liquor you did in your marrow-bone Pie with yelkes of two or three egs beaten amongſt it; and ſo ſerue it forth. To bake a chicken-pie.

To make good *Red-Deere* Veniſon of *Hares*, take a *Hare* or two, or three, as you can or pleaſe, and picke all the fleſh from the bones; then put it into a morter either of wood or ſtone, and with a wooden peſtle let a ſtrong perſon beate it exceedingly, and euer as it is beating, let one ſprinkle in *vinegar* and ſome *ſalt*; then when it is ſufficiently beaten, take it out of the morter, and put it into boiling water and parboile it: when it is parboild, take it and lay it on a table in a round lumpe, and lay a board ouer it, & with weights preſſe it as hard as may be: then the water being preſt out of it, ſeaſon it well with *Pepper* and *Salt*: then lard it with the fat of *Bacon* ſo thicke as may be: then bake it as you bake other *Red-Deere*, which is formerly declared. Additions to the Paſtery. Veniſon of Hares.

Take a *Hare* and pick off all the fleſh from the bones, and only reſerue the head, then parboile it well: which done, take it out and let it coole, aſſoone as it is cold, take at leaſt a pound and halfe of *Raiſins* of the Sunne, and take out the ſtones: then mixe them with a good To bake a Hare pye.

quantity

quantity of Mutton ſuet, and with a ſharpe ſhredding knife ſhred it as ſmall as you would doe for a Chewet: then put to it *Currants* and whole *Raiſins*, *Cloues* and *Mace*, *Cinamon* and *Salt*: then hauing raiſed the coffin long-wiſe to the proportion of a *Hare*, firſt lay in the head, and then the aforeſaid meate, and lay the meate in the true portion of a *Hare*, with necke, ſhoulders, and legges, and then couer the coffin and bake it as other bak't meates of that nature.

A Gammon of Bacon-pie.

Take a Gammon of Bacon and onely waſh it cleane, and then boile it on a ſoft gentle fire, til it be boiled as tender as is poſſible, euer and anon fleeting it cleane, that by all meanes it may boile white: then take off the ſwerd, and ſeaſe it very well with all manner of ſweete and pleaſant ſeaſoning hearbs: then ſtrow ſtore of *Pepper* ouer it, and pricke it thicke with *Cloues*: then lay it into a coffin made of the ſame proportion, and lay good ſtore of *Butter* round about it, and vpon it, and ſtrow *Pepper* vpon the *Butter*, that as it melts, the *Pepper* may fall vpon the Bacon: then couer it, and make the proportion of a *Pigges* head in paſte vpon it, and then bake it as you bake *Red Deere*, or things of the like nature, onely the Paſte would be of Wheate-meale.

A Herring-pie.

Take white pickled *Herrings* of one nights watering and boyle them a little: then pill off the skinne and take onely the backs of them, and picke the fiſh cleane from the bones, then take good ſtore of *Raiſins* of the Sunne, and ſtone them, and put them to the fiſh: then take *Warden* or two, and pare it, and ſlice it in ſmall ſlices from the chore, and put it likewiſe to the fiſh: then with a very ſharpe ſhredding knife ſhred all as ſmall and fine as may be: then put to it good ſtore of *Currants*, *Sugar* *Cinamon*, ſlic't *Dates*, and ſo put it

it into the coffin with good ſtore of very ſweet *Butter*, and ſo couer it, and leaue onely a round vent-hole on the top of the lid, and ſo bake it like pies of that nature: When it is ſufficiently bak't, draw it out, and take *Claret-wine* and a little *Verjuice*, *Sugar*, *Cinamon*, and ſweet *Butter*, and boile them together; then put it in at the vent-hole, and ſhake the pie a little, and put it againe into the Ouen for a little ſpace, and ſo ſerue it vp, the lid being candied ouer with *Sugar*, and the ſides of the diſh trimmed with *Sugar*.

Take a Iole of the beſt *Ling* that is not much watred, and is well ſodden and cold, but whileſt it is hot take off the skin, and pare it cleane vnderneath, and pick out the bones cleane from the fiſh: then cut it into groſſe bits and let it lie: then take the yelks of a dozen *Egges* boild exceeding hard, and put them to the fiſh, and ſtired all together as ſmall as is poſſible: then take all manner of the beſt and fineſt pot-herbs, and chop them wonderfull ſmall, and mixe them alſo with the fiſh; then ſeaſon it with *Pepper*, *Cloues*, and *Mace*, and ſo lay it into a coffin with great ſtore of ſweete *Butter*, ſo as it may ſwimme therein, and then couer it, and leaue a vent hole open in the top when it is bak't, draw it, and take *Verjuice*, *Sugar*, *Cinamon* and *Butter*, and boile them together, and firſt with a feather annoynt all the lid ouer with that liquor, and then ſcrape good ſtore of *Sugar* vpon it; then powre the reſt of the liquor in at the vent hole, & then ſet it into the Ouen againe for a very little ſpace, and then ſerue it vp as pies of the ſame nature; and both theſe pies of fiſh before rehearſed, are eſpecall Lenten diſhes. A Ling pie.

Take a pint of the ſweeteſt and thickeſt Creame that can be gotten, and ſet it on the fire in a very cleane ſcowred

☞ A Norfolke foole.

scowred skillet, and put into it *Sugar*, *Cinamon* and a *Nutmegge* cut into foure quarters, and so boile it well: then take the yelkes of foure *Egs*, and take off the filmes, and beate them well with a little sweete *Creame*: then take the foure quarters of the *Nutmegge* out of the *Creame*, then put in the *Egges*, and stirre it exceedingly, till it be thicke: then take a fine Manchet, and cut it into thin shiues, as much as will couer a dish-bottome, and holding it in your hand, powre halfe the *Creame* into the dish: then lay your bread ouer it, then couer the bread with the rest of the *Creame*, and so let it stand till it be cold: then strow it ouer with *Carraway* Comfets, and pricke vp some *Cinamon* Comfets, and some slic't Dates; or for want thereof, scrape all ouer it some *Sugar*, and trim the sides of the dish with *Sugar*, and so serue it vp.

A Trifle.

Take a pint of the best and thickest *Creame*, and set it on the fire in a cleane skillet, and put into it *Sugar*, *Cinamon*, and a *Nutmegge* cut into foure quarters, and so boile it well: then put it into the dish you intend to serue it in, and let it stand to coole till it be no more then luke-warme: then put in a spoonefull of the best earning, and stirre it well about, and so let it stand till it be cold, and then strow *Sugar* vpon it, and so serue it vp, and this you may serue either in dish, glasse, or other plate.

A Calues foote-pye.

Take *Calues* feete well boild, and picke all the meate from the bones: then being cold mince it as small as you can, then season it with *Cloues* and *Mace*, and put in good store of *Currants*, *Raisins*, and *Prunes*: then put it into the coffin with good store of sweete *Butter*, then breake in whole sticks of *Cinamon*, and a *Nutmegge* slic't into foure quarters, and season it before with *Salt*: then

then close vp the coffin, and onely leaue a vent-hole. When it is bak't, draw it, and at the vent-hole put in the same liquor you did in the *Ling*-pie, and trim the lid after the same manner, and so serue it vp.

Take of the greatest *Oysters* drawne from the shells, and parboile them in *Verjuice*: then put them into a cullander, and let all the moysture run from them, till they be as dry as is possible: then raise vp the coffin of the pie, and lay them in: then put to them good store of Currants and fine powdred Sugar, with whole Mace, whole Cloues, whole Cinamon, and Nutmeg slic't, Dates cut, and good store of sweete butter: then couer it, and onely leaue a vent-hole: when it is bak't, then draw it, and take White-wine, and White-wine-vinegar, Sugar, Cinamon, and sweete butter, and melt it together; then first trim the lid therewith, and candie it with Sugar; then powre the rest in at the vent-hole, and shake it well, and so set it into the ouen againe for a little space, and so serue it vp, the dish edges trimd with Sugar. Now some vse to put to this pie *Orenges* sliced and shred, but that is referred to discretion, and to the pleasure of the taste. Oysterpye.

Take strong *Ale*, and put to it of *Wine-vinegar* as much as will make it sharpe: then set it on the fire, and boile it well, and skum it, and make of it a strong brine with *Bay salt*, or other *salt*: then take it off, and let it stand till it be cold, then put your Venison into it, and let it lie in it full twelue houres: then take it out from that meat sauce, and presse it well; then parboyle it, and season it with *Pepper* and *Salt*, and bake it, as hath beene before shewed in this Chapter. To recouer Venison that is tainted.

Take the brawnes and the wings of Capons and Chickens after they haue beene rosted, and pull away the A Chewet pye

skin, then shred them with fine Mutton suet very small, then season it with *Cloues*, *Mace*, *Cinamon*, *Sugar* and *Salt*, then put to *Raisins* of the Sunne & *Currants*, and slic't *Dates*, and *Orenge* pills, and being well mixt together, put it into small coffins made for the purpose, and strow on the top of them good store of *Carraway*-Comfets: then couer them, and bake them with a gentle heate, and these Chewets you may also make of rosted Veale, seasoned as before shewed, and of all parts the loyne is the best.

A mine't pie. Take a Legge of Mutton, and cut the best of the flesh from the bone, and parboyle it well: then put to it three pound of the best Mutton suet, and shred it very small: then spread it abroad, and season it with *Pepper* and *Salt*, *Cloues* and *Mace*: then put in good store of *Currants*, great *Raisins* and *Prunes* cleane washt and pickt, a few *Dates* slic't, and some *Orenge* pills slic't: then being all well mixt together, put it into a coffin, or into diuers coffins, and so bake them: and when they are serued vp open the liddes, and strow store of *Sugar* on the top of the meate, and vpon the lid. And in this sort you may also bake Beefe or Veale; onely the Beefe would not bee parboyld, and the Veale will aske a double quantity of Suet.

A Pippen pie. Take of the fairest and best *Pippins*, and pare them, and make a hole in the top of them; then pricke in each hole a *Clowe* or two, then put them into the coffin, then breake in whole sticks of *Cinamon*, and slices of *Orenge* pills and *Dates*, and on the top of euery *Pippin* a little peece of sweete butter: then fill the coffin, and couer the *Pippins* ouer with *Sugar*; then close vp the pie, and bake it, as you bake pies of the like nature, and

and when it is bak't, annoint the lidde ouer with ſtore of ſweete butter, and then ſtrow *Sugar* vpon it a good thickneſſe; and ſet it into the ouen againe for a little ſpace, as whileſt the meate is in diſhing vp, and then ſerue it.

A Warden-pie, or quinces-pie.

Take of the faireſt and beſt *Wardens*, and pare them, and take out the hard chores on the top, and cut the ſharpe ends at the bottome flat; then boyle them in *White wine* and *Sugar*, vntill the ſirrup grow thicke: then take the *Wardens*, from the ſirrup into a cleare diſh, and let them coole; then ſet them into the coffin, and prick *Cloues* in the tops, with whole ſticks of *Cinamon*, and great ſtore of *Sugar*, as for *Pippins*; then couer it, and onely reſerue a vent-hole, ſo ſet it in the ouen and bake it: when it is bak't, draw it forth, and take the firſt ſirrup in which the *Wardens* were boyld, and taſte it, and if it be not ſweet enough, then put in more *Sugar* and ſome *Roſe water*, and boyle it againe a little, then powre it in at the vent-hole, & ſhake the pie well; then take ſweet butter and *Roſe water* melted, and with it annoint the pie-lid all ouer, and then ſtrow vpon it ſtore of *Sugar*, and ſo ſet it into the ouen againe a little ſpace, and then ſerue it vp. And in this manner you may alſo bake *Quinces*.

To reſerue quinces to bake all the yeare.

Take the beſt and ſweeteſt worte, and put to it good ſtore of *Sugar*; then pare and chore the *Quinces* cleane, and put them therein, and boyle them till they grow tender: then take out the *Quinces* and let them coole, & let the pickle in which they were boild, ſtand to coole alſo; then ſtraine it through a raunge or ſiue, then put the *Quinces* into a ſweete earthen pot, then powre the pickle or ſirrup vnto them ſo as all the *Quinces* may be quite couered all ouer; then ſtop vp the pot cloſe,

and set it in a dry place, and once in sixe or seuen weeks looke vnto it; and if you see it shrinke, or doe begin to hoare or mould, then powre out the pickle or sirrup, and renewing it, boyle it ouer againe, and as before put it to the *Quinces* being cold and thus you may preserue them for the vse of baking, or otherwise all the yeere.

A pippen Tart. Take Pippins of the faireſt, and pare them, and then diuide them iuſt in the halfes, and take out the chores cleane: then hauing rold out the coffin flat, and raiſd vp a ſmall verdge of an inch, or more high, lay in the Pippins with the hollow ſide downeward, as cloſe one to another as may be: then lay here and there a *clou*, and here and there a whole ſticke of *Sinamon*, and a little bit of butter: then couer all cleane ouer with *Sugar*, and ſo couer the coffin, and bake it according to the manner of Tarts; and when it is bak't, then draw it out, and hauing boyled *Butter* and *roſe water* together, anoynt all the lid ouer therewith, and then ſcrape or ſtrow on it good ſtore of *Sugar*, and ſo ſet it in the ouen againe, and after ſerue it vp.

A codlin Tart. Take greene *Apples* from the tree, and codle them in ſcalding water without breaking; then pill the thinne skin from them, and ſo diuide them in halfes, and cut out the chores, and ſo lay them into the coffin, and doe in euery thing as you did in the Pippin tart; and before you couer it when the *Sugar* is caſt in, ſee you ſprinkle vpon it good ſtore of *Roſe-water*, then cloſe it, and doe as before ſhewed.

A codling pie. Take Codlins as before ſaid, and pill them and diuide them in halfes, and chore them, and lay a leare thereof in the bottome of the pie: then ſcatter here and there a *cloue*, and here and there a peece of whole *Sinamon*; then couer them all ouer with *Sugar*, then lay another

another leare of *Codlins*, and doe as beforesaid, and so another, till the coffin be all filled; then couer all with Sugar, and here and there a Cloue and a Cinamon-sticke, and if you will a slic't Orange pill and a Date; then couer it, and bake it as the pies of that nature: when it is bak't, draw it out of the ouen, and take of the thickest and best Creame with good store of Sugar, and giue it one boile or two on the fire: then open the pie, and put the Creame therein, and mash the Codlins all about; then couer it, and hauing trimd the lidde (as was before shewed in the like pies and tarts) set it into the ouen againe for halfe an houre, and so serue it forth.

Take the faireſt Cherries you cān get, and pick them cleane from leaues and stalkes: then spread out your coffin as for your Pippin-tart, and couer the bottome with Sugar: then couer the Sugar all ouer with Cherries, then couer those Cherries with Sugar, some sticks of Cinamon, and here and there a Cloue: then lay in more cherries, and so more Sugar, Cinamon and cloues, till the coffin be filled vp: then couer it, and bake it in all points as the codling and pipping tart, and so serue it: and in the same manner you may make Tarts of Gooseberries, Strawberries, Rasberries, Bilberries, or any other Berrie whatsoeuer. A Cherry Tart.

Take *Rice* that is cleane picked, and boyle it in sweet *Creame*, till it be very soft: then let it stand and coole, and put into it good store of *Cinamon* and *Sugar*, and the yelkes of a couple of *Egges* and some *Currants*, stir and beate all well together: then hauing made the coffin in the manner before said for other tarts, put the *Rice* therein, and spread it all ouer the coffin: then breake many little bits of sweet butter vpon it all ouer, A Rice Tart.

and ſcrape ſome ſugar ouer it alſo, then couer the tart, and bake it, and trim it in all points, as hath bene before ſhewed, and ſo ſerue it vp.

A Florentine. Take the Kidneys of veale after it hath bene well roſted, and is cold: then ſhred it as fine as is poſſible; then take all ſorts of ſweete Pot hearbs, or ſearſing hearbs, which haue no bitter or ſtrong taſte, and chop them as ſmall as may be, and putting the veale into a large diſh, put the hearbs vnto it, and good ſtore of cleane waſht Currants, Sugar, Cinamon, the yelkes of foure egges, a little ſweete creame warmd, and the fine grated crummes of a halfe penny loafe and ſalt, and mixe all exceeding well together: then take a deepe pewter diſh, and in it lay your paſte very thin rowld out, which paſte you muſt mingle thus: Take of the fineſt wheat-flower a quart, and a quarter ſo much ſugar, and a little cinamon; then breake into it a couple of egges, then take ſweet creame and butter melted on the fire, and with it knead the paſte, and as was before ſayd, hauing ſpread butter all about the diſhes ſides: then put in the veale, and breake pecces of ſweete butter vpon it, and ſcrape ſugar ouer it; then rowle out another paſte reaſonable thicke, and with it couer the diſh all ouer, cloſing the two paſts with the beaten whites of egges very faſt together: then with your knife cut the lid into diuerſe pretty workes according to your fancy: then ſet it in the Ouen and bake it with pies and tarts of like nature: when it is back't, draw it, and trim the lid with ſugar, as hath bene ſhewed in tarts, and ſo ſerue it vp in your ſecond courſes.

A pruen tart. Take of the fairеſt damaske pruens you can get, and put them in a cleane pipkin with faire water, Sugar, vnbruiſed Cinamon, and a braunch or two of Roſemary,

mary, and if you haue bread to bake, ſtew them in the ouen with your bread: if otherwiſe, ſtew them on the fire: when they are ſtewed, then bruiſe them all to maſh in their ſirrop, and ſtrayne them into a cleane diſh; then boyle it ouer againe with Sugar, Cinamon, and Roſe-water, till it be as thicke as Marmalad: then ſet it to coole, then make a reaſonable tuffe paſte with fine flower, Water, and a little butter, and rowle it out very thinne: then hauing patternes of paper cut into diuerſe proportions, as Beaſtes, Birdes, armes, Knots, Flowers, and ſuch like: Lay the patternes on the paſte, and ſo cut them accordingly: then with your fingers pinch vpp the edges of the paſte, and ſet the worke in good proportion: then pricke it well all ouer for riſing, and ſet it on a cleane ſheete of large paper, and ſo ſet it into the Ouen, and bake it hard; then drawe it, and ſet it by to coole: and thus you may doe by a whole Ouen full at one time, as your occaſion of expence is: then againſt the time of ſeruice comes, take off the confection of pruens before rehearſed, and with your Knife, or a ſpoone fill the coffin according to the thickneſſe of the verge; then ſtrow it ouer all with Caraway comfets, and pricke long comfets vpright in it, and ſo taking the paper from the bottome, ſerue it on a plate in a diſh or charger, according to the bigneſſe of the tart, and at the ſecond courſe, and this tart carrieth the colour blacke.

Take apples and pare them, and ſlice them thin from the chore into a pipkin with White-wine, good ſtore of Sugar, Cinamon, a few Saunders and Roſewater, and boyle it till it be thicke; then coole it, and ſtraine it, and beate it very well together with a ſpoone: then put it into the coffin as you did the Pruen tart, and Apple-tart.

adorne it alſo in the ſame manner, and this tart you may fill thicker or thinner, as you pleaſe to raiſe the edge of the coffin, and it carrieth the colour red.

A Spinage tart. Take good ſtore of Spinage, and boyle it in a Pipkin with White-wine till it be very ſoft as pap: then take it and ſtraine it well into a pewter diſh, not leauing any part vnſtrained: then put to it Roſewater, great ſtore of ſugar and cynamon, and boyle it till it be as thicke as Marmalad, then let it coole, and after fill your coffin, and adorne it, and ſerue it in all points as you did your pruen-tart, and this carrieth the colour greene.

A yellow tart. Take the yelkes of egs, and breake away the ſilmes, and beate them well with a little creame: then take of the ſweeteſt and thickeſt creame that can be got, and ſet it on the fire in a cleane skillet, and put into it ſugar, cinamon and roſe-water, and then boyle it well: when it is boyled, and ſtill boyling, ſtirre it well, and as you ſtirre it put in the egs, and ſo boyle it till it curdle; then take it from the fire and put it into a ſtrainer, and firſt let the thin whay runne away into a by diſh, then ſtraine the reſt very well, and beate it well with a ſpoone, and ſo put it into the tart coffin, and adorne it as you did your pruen-tart, and ſo ſerue it: this carrieth the colour yellow

A white tart. Take the whites of egs and beate them with roſe-water, and a little ſweet creame: then ſet on the fire good thicke ſweete creame, and put into it ſugar, cynamon, roſe-water, and boyle it well, and as it boyles ſtirre it exceedingly, and in the ſtirring put in the whites of egs; then boile it till it curdle, and after doe in all things as you did to the yellow tart; and this carrieth the colour white, and it is a very pure white, and therefore would be adorned with red carraway comfets, and as this ſo

with

with blaunched almonds like white tarts and ſtill as pure. Now you may (if you pleaſe) put all theſe ſeuerall colours, and ſeuerall ſtuffes into one tart, as thus: If the tart be in the proportion of a beaſt, the body may be of one colour, the eyes of another, the teeth of another, and the tallents of another: and ſo of birds, the body of one colour, the eyes another, the legges of another, and euery feather in the wings of a ſeuerall colour according to fancy: and ſo likewiſe in armes, the field of one colour, the charge of another, according to the forme of the Coat-armour; as for the mantles, trailes and deuices about armes, they may be ſet out with ſeuerall colours of preſerues, conſerues, marmalads, and goodinyakes, as you ſhall find occaſion or inuention, and ſo likewiſe of knots, one trayle of one colour, and another of another, and ſo of as many as you pleaſe.

An hearbe tart.

Take ſorrell, ſpinage, parſley, and boyle them in water till they be very ſoft as pap, then take them vp, and preſſe the water cleane from them, then take good ſtore of yelkes of egges boild very hard, and chopping them with the hearbes exceeding ſmall, then put in good ſtore of currants, ſugar and cynamon, and ſtirre all well together; then put them into a deepe tart coffin with good ſtore of ſweete butter, and couer it; and bake it like a pippin tart, and adorne the lid after the baking in that manner alſo, and ſo ſerue it vp.

To bake a pudding pye.

Take a quart of the beſt creame, and ſet it on the fire, and ſlice a loafe of the lighteſt white bread into thinne ſlices, and put into it, and let it ſtand on the fire till the milke be ready to riſe; then take it off & put it into a baſon, and let it ſtand till it be cold: then put in the yelkes of foure egges, and two whites, good ſtore of currants, ſugar,

Sugar, *Cinamon*, *Cloues*, *Mace*, and plenty of *Sheepes* suet finely shred, and a good season of *Salt*; then trim your pot very well round about with butter, and so put in your pudding, and bake it sufficiently, then when you serue it, strow *Sugar* vpon it.

A Whitepot.

Take the best and sweetest creame, and boile it with good store of *Sugar*, and *Cinamon*, and a little rose-water, then take it from the fire and put into it cleane pickt ryce, but not so much as to make it thicke, & let it steepe therein till it be cold; then put in the yelks of sixe egs, & two whites, *Currants*, *Sugar*, *Sinamon*, and *Rose-water*, and *Salt*, then put it into a pan, or pot, as thin as if it were a custard; and so bake it and serue it in the pot it is baked in, trimming the top with sugar or comfets.

OF banquering stuffe and conceited dishes.

There are a world of other Bak't meates and Pies, but for as much as whosoeuer can doe these may doe all the rest, because herein is contained all the Art of seasonings, I will trouble you with no further repetitions; but proceede to the manner of making of Banquering stuffe and conceited dishes, with other pretty and curious secrets, necessary for the vnderstanding of our English Houf-wife: for albeit they are not of generall vse, yet in their due times they are so needfull for adornation, that whosoeuer is ignorant therein, is lame, and but the halfe part of a compleat Houf-wife.

To make paste of Quinces.

To make paste of Quinces: first boile your Quinces whole and when they are soft, pare them and cut the Quince from the core; then take the finest sugar you can get finely beaten and searsed, and put in a little Rose water and boile it together till it be thicke; then put in the cut Quinces and so boyle them together till it be stiffe enough to mold, and when it is cold, then role it and print it; a pound of Quinces will take a pound of sugar,

Or

or neere thereabouts.

To make thin Quince-cakes, take your quince when it is boyled ſoft as before ſaid, and dry it vpon a Pewter plate with ſoft heate, & be euer ſtirring of it with a ſlice till it be hard; then take fearced ſugar quantity for quantity & ſtrow it into the quince, as you beate it in a wooden or ſtone morter: and ſo role them thin & print them. To make thin quince cakes.

To preſerue Quinces: firſt pare your Quinces and take out the cores and boile the cores and parings all together in faire water, and when they beginne to be ſoft, take them out and ſtraine your liquor, and put the waight of your Quinces in ſugar, and boile the Quinces in the ſirrup till they be tender: then take them vp and boile your ſirrup till it be thicke: If you will haue your Quinces red, couer them in the boiling, and if you will haue them white doe not couer them. To preſerue quinces

To make Ipocras, take a pottle of wine, two ounces of good *Cinamon*, halfe an ounce of ginger, nine cloues, & ſixe pepper cornes, and a nutmeg, & bruiſe them and put them into the wine with ſome roſemary flowers, and ſo let them ſteepe all night, and then put in ſugar a pound at leaſt: & when it is well ſetled, let it run through a woollen bag made for that purpoſe: thus if your wine be claret, the Ipocras wil be red: if white then of that color alſo. To make Ipocras.

To make the beſt Ielly, take calues feet and waſh them and ſcald off the haire as cleane as you can get it: then ſplit them and take out the fat and lay them in water, & ſhift them: then boile them in faire water vntill it will ielly, which you ſhall know by now and then cooling a ſpoonefull of the broth: when it will ielly then ſtraine it, and when it is cold then put in a pint of Sacke and whole *Cinamon* and *Ginger* ſlic't, and Sugar and a little Roſe-water, and boyle all well together againe: To make ielly.

Then

Then beate the white of an egge an put it into it, and let it haue one boile more: then put in a branch of Roſemary into the bottome of your ielly bag, and let it runne through once or twice, and if you will haue it coloured, then put in a little Towneſall. Alſo if you want calues feete you may make as good Ielly if you take the like quantity of Iſingglaſſe, and ſo vſe no calues feete at all.

To make Leach.

To make the beſt Leach, take Iſingglaſſe and lay it two houres in water, and ſhift it and boyle it in faire water and let it coole: Then take Almonds and lay them in cold water till they will blaunch: And then ſtampe them and put to new milke, and ſtrayne them and put in whole Mace and Ginger ſlic't, and boile them till it taſte well of the ſpice: then put in your Iſingglaſſe and ſugar, and a little Roſe-water: and then let them all runne through a ſtrainer.

To make Ginger bread.

Take Claret wine and colour it with Towneſall, and put in ſugar and ſet it to the fire: then take wheat bread finely grated and ſifted, and Licoras, Aniſeedes, Ginger and Cinamon beaten very ſmall and ſearſed: and put your bread and your ſpice all together, and put them into the wine and boile it and ſtirre it till it be thicke: then mould it and print it at your pleaſure, & let it ſtand neither too moiſt nor too warme.

Marmalad of quinces red.

To make red Marmelade of Quinces: take a pound of Quinces and cut them in halfes, and take out the cores and pare them: then take a pound of Sugar and a quart of faire water and put them all into a pan, and let them boile with a ſoft fire, and ſometimes turne them and keepe them couered with a Pewter diſh, ſo that the ſteame or aire may come a little out: the longer they are in boyling the better colour they will haue: and when

when they be ſoft take a knife and cut them croſſe vpon the top, it will make the ſirrup goe through that they may be all of a like colour: then ſet a little of your ſirrop to coole, and when it beginneth to be thicke then breake your quinces with a ſlice or a ſpoone ſo ſmall as you can in the pan, and then ſtrow a little fine ſugar in your boxes bottome, and ſo put it vp.

To make white Marmalade you muſt in all points vſe your quinces as is before ſaid; only you muſt take but a pint of water to a pound of quinces, and a pound of ſugar, and boile them as faſt as you can, and couer them not at all. Marmalad white.

To make the beſt Iumbals, take the whites of three egges and beate them well, and take off the froth; then take a little milke and a pound of fine wheate flower & ſugar together finely ſifted, and a few Aniſeeds well rub'd and dried, and then worke all together as ſtiffe as you can worke it, and ſo make them in what formes you pleaſe, and bake them in a ſoft ouen vppon white Papers. To make Iumbals.

To make Bisket-bread, take a pound of fine flower, & a pound of ſugar finely beaten and ſearſed, and mixe them together; Then take eight egges and put foure yelks and beate them very well together; then ſtrow in your flower and ſugar as you are beating of it, by a little at once. it will take very neere an houres beating; then take halfe an ounce of Aniſeedes and Coriander-ſeeds and let them be dried and rubbed very cleane, and put them in; then rub your Bisket-pans with cold ſweet butter as thin as you can, and ſo put it in and bake it in an ouen: But if you would haue thinne Cakes, then take fruit diſhes and rub them in like ſort with butter, and ſo bake your Cakes on them, and when they To make Bisket-bread.

they are almost back't, turne them, and thrust them downe close with your hand. Some to this Bisket bread will adde a little Creame, and it is not amisse, but excellent good also.

To make finer lumbals.

To make lumbals more fine and curious then the former, and neerer to the taste of *the Macaroone*: take a pound of sugar beate it fine, then take as much fine wheat flower and mixe them together, then take two whites and one yolke of an egge, halfe a quarter of a pound of blaunched Almonds, then beate them very fine altogether with halfe a dish of sweet butter, and a spoonefull of Rose-water, and so worke it with a little Creame till it come to a very stiffe paste, then roule them forth as you please: And hereto you shall also, if you please, adde a few dried Aniseeds finely rubbed and strewed into the paste, and also Coriander seed.

To make drie sugar Leache.

To make drie sugar Leache, blaunch your Almonds and beate them with a little rose water and the white of one egge, and you must beate it with a great deale of sugar, and worke it as you would worke a peece of paste: then roule it and print it as you did other things, onely be sure to strew sugar in the print for feare of cleaving too.

To make Leach Lumbard.

To make Leache Lumbard, take halfe a pound of blaunched Almonds, two ounces of Cinamon beaten and searsed, halfe a pound of sugar, then beate your Almonds, and strewe in your sugar and cynamon till it come to a paste, then roule it and print it, as aforesayd.

To make fresh cheese.

To make an excellent fresh cheese, take a pottle of Milke as it comes from the Cow, and a pint of creame: then take a spoonefull of runnet or earning, and put it vnto it, and let it stand two houres: then stirre it vp, and

and put it into a fine cloth, and let the whay draine from it; then put it into a bowle, and take the yelke of an egge, a spoonefull of Rose-water, and bray them together with a very little salt, with Sugar and Nutmegs; and when all these are brayed together and searst, mixe it with the curd, and then put it into a cheese-fat with a very fine cloth.

How to make course Ginger bread.

To make course Ginger bread, take a quart of Hony and set it on the coales and refine it; then take a penny-worth of Ginger, as much Pepper, as much Licoras, and a quarter of a pound of Aniseeds, and a peny worth of Saunders: All these must be beaten and searsed, and so put into the hony: then put in a quarter of a pint of Claret wine or old ale, then take three peny Manchets finely grated and strow it amongst the rest, and stirre it till it come to a stiffe paste, and then make it into cakes and dry them gently.

How to make quince cakes ordinary.

To make ordinary Quince cakes, take a good peece of a preserued Quince, and beate in a morter, and worke it vp into a very stiffe paste with fine searst Sugar: then print it and drie them gently.

How to make Cinamon sticker.

To make most Artificiall *Cinamon* sticks, take an ounce of *Cinamon* and pound it, and halfe a pound of Sugar: then take some gumme Dragon and put it in steepe in Rosewater, then take thereof to the quantity of a hasell nut, and worke it out and print it, and roule it in forme of a Cinamon sticke.

How to make Cinamon water.

To make *Cinamon* water take a pottle of the best Ale and a pottle of sack-lees; a pound of Cinamon sliced fine, and put them together, and let them stand two daies; then distill them in a limbecke or glasse-Still.

How to make Worme-wood water.

To make Wormewood water, take two gallons of good Ale, a pound of Aniseedes, halfe a pound of Licoras,

Licoras, and beate them very fine, And then take two good handfuls of the crops of wormewood, and put them into the Ale and let them ſtand all night, and then diſtill them in a limbeck with a moderate fire.

To make ſweete water

To make ſweete water of the beſt kind, take a thouſand damaske roſes, two good handfuls of Lauendar tops, a three peny waight of mace, two ounces of cloues bruiſed, a quart of running water: put a little water into the bottome of an earthen pot, and then put in your Roſes and Lauender with the ſpices by little and little, and in the putting in alwaies knead them downe with your fiſt, and ſo continue it vntill you haue wrought vp all your Roſes and Lauender, and in the working betweene put in alwaies a little of your water; then ſtop your pot cloſe, and let it ſtand foure daies, in which time euery morning and euening put in your hand, and pull from the bottome of your pot the ſaide Roſes, working it for a time: and then diſtill it, and hang in the glaſſe of water a graine or two of Muske wrapt in a peece of Sarcenet or fine cloath.

Another way

Others to make ſweete water, take of Ireos two ounces, of Calamus halfe an ounce, of Cipreſſe rootes halfe an ounce, of yellow Saunders nine drams, of Cloues bruiſed one ounce, of Beniamin one ounce, of Storax and Calamint one ounce, and of Muske twelfe graines, and infuſing all theſe in Roſe-water diſtill it.

To make date Leache

To make an excellent Date-Leach, take Dates, and take out the ſtones and the white rinde, and beate them with Sugar, Cinamon and Ginger very finely: then worke it as you would worke a peece of paſte, and then print them as you pleaſe,

To make ſugar plate.

To make a kind of Sugar plate, take Gumme Dragon, and lay it in Roſe-water two daies: then take the pow-

der

der of faire Hepps and Sugar, and the iuyce of an Orenge; beate all theſe together in a Morter, then take it out and worke it with your hand: and print it at your pleaſure.

To make excellent ſpice Cakes, take halfe a pecke of very fine Wheat-flower, take almoſt one pound of ſweet butter, and ſome good milke and creame mixt together, ſet it on the fire, and put in your butter, and a good deale of ſugar, and let it melt together: then ſtraine Saffron into your milke a good quantity: then take ſeuen or eight ſpoonefulls of good Ale-barme, and eight egges with two yelkes and mixe them together, then put your milke to it when it is ſomewhat cold, and into your flower put ſalt, Aniſeedes bruiſed, Cloues and Mace, and a good deale of Cinamon: then worke all together good and ſtiffe, that you need not worke in any flower after: then put in a little roſewater cold, then rub it well in the thing you knead it in, and worke it throughly: if it be not ſweete enough, ſcrape in a little more ſugar, and pull it all in peeces, and hurle in a good quantity of Currants, and ſo worke all together againe, and bake your Cake as you ſee cauſe in a gentle warme ouen. To make ſpice Cakes.

To make a very good Banbury Cake, take foure pounds of Currants, & waſh and pick them very cleane, and drie them in a cloth: then take three egges and put away one yelke, and beate them, and ſtrayne them with barme; putting thereto Cloues, Mace, Cinamon and Nutmegges, then take a pint of Creame, and as much mornings milke and ſet it on the fire till the cold be taken away; then take flower and put in good ſtore of cold butter and ſugar, then put in your egges, barme and meale and worke them all together an houre or more: To make a Banbury Cake.

more; then ſaue a part of the paſte, & the reſt breake in peeces and worke in your Currants; which done, mold your Cake of what quantity you pleaſe; and then with that paſte which hath not any Currants couer it very thinne both vnderneath and a loft. And ſo bake it according to the the bigneſſe.

To make the beſt March-pane.

To make the beſt March pane, take the beſt Iordan Almonds and blaunch them in warme water, then put them into a ſtone-morter, and with a wooden peſtell beate them to pappe, then take of the fineſt refined ſugar well ſearſt, and with it Damaske Roſe-water, beate it to a good ſtiffe paſte, allowing almoſt to euery Iordan Amlond three ſpoonefull of ſugar; then when it is brought thus to a paſte, lay it vpon a faire table, and ſtrowing ſearſt ſugar vnder it, mould it like leauen, then with a roling-pin role it forth, and lay it vpon wafers waſht with Roſe-water; then pinch it about the ſides, and put it into what forme you pleaſe; then ſtrow ſearſt ſugar all ouer it, which done, waſh it ouer with Roſe-water and ſugar mixt together, for that will make the ice; then adorne it with Comfets, guilding, or whatſoeuer deuiees you pleaſe, and ſo ſet it into a hot ſtoue, and there bake it criſpie, and ſo ſerue it forth. Some vſe to mixe with the paſte Cinamon and Ginger finely ſearſt, but I referre that to your particular taſte.

To make paſte of Genoa, or any other paſt.

To make paſte of *Genoa*, you ſhall take Quinces after they haue beene boyled ſoft, and beate them in a morter with refined Sugar, Cinamon and Ginger finely ſearſt, and Damaske roſe-water till it come to a ſtiffe paſte; and role it forth and print it, and ſo bake it in a ſtoue; and in this ſort you may make paſte of Peares, Apples, Wardens, Plummes of all kinds, Cherries, Barberries, or what other fruit you pleaſe.

To

To make conſerue of any fruit you pleaſe, you ſhall take the fruite you intend to make conſerue of: and if it be ſtone-fruit you ſhall take out the ſtones: if other fruit take away the paring and chore, and then boyle them in faire running water to a reſonable height: then draine them from thence, and put them into a freſh veſſell with Claret wine, or White wine, according to the colour of the fruit: and ſo boyle them to a thicke pappe all to maſhing, breaking and ſtirring them together: then to euery pound of pappe put to a pound of Sugar, and ſo ſtirre them all well together, and being very hot ſtrayne them through faire ſtrayners, and ſo pot it vp. To make any Conſerue.

To make conſerue of Flowers, as Roſes, Violets, Gillyflowers, and ſuch like: you ſhall take the flowers from the ſtalkes, and with a paire of ſheeres cut away the white ends at the roots thereof, and then put them into a ſtone morter or wooden brake, and there cruſh or beate them till they be come to a ſoft ſubſtance: and then to euery pound thereof, take a pound of fine refined ſugar well ſearſt and beate it all together, till it come to one intire body, and then pot it vp, and vſe it as occaſion ſhall ſerue. To make Conſerue of Flowers.

To make the beſt Wafers, take the fineſt wheat-flower you can get, and mixe it with creame, the yelkes of egges, Roſe-water, Sugar and Cinamon till it be a little thicker then Pan cake-batter; and then warming your wafer-irons on a char-coale-fire, annoint them firſt with ſweete butter, and then lay on your batter and preſſe it, and bake it white or browne at your pleaſure. To make Wafers.

To make an excellent Marmalade of Oranges, take the Oranges, and with a knife pare off as thinn as is poſſible the vppermoſt rinde of the Orange: yet in ſuch To make Marmalade of Oranges.

ſort, as by no meanes you alter the color of the Orange, then ſteepe them in faire water, changing the water twice a day, till you finde no bitterneſſe of taſte therein, then take them forth, and firſt boile them in faire running water, and when they are ſoft, remoue them into roſewater, and boile them therein till they breake: then to euery pound of the pulpe put a pound of refined ſugar, and ſo hauing maſht and ſtirred them all well together, ſtraine it through very faire ſtrainers into boxes, and ſo vſe it as you ſhall ſee occaſion.

Additions to Banqueting ſtuffe.

Take a pottle of fine flower, and a pound of Sugar, a little Mace, and good ſtore of water to mingle the flower into a ſtiffe paſte, and a good ſeaſon of ſalt, and ſo knead it, and role out the cake thinne and bake them on papers.

To make fine Cakes.

Fine bread.

Take a quarter of a pound of fine ſugar well beaten, and as much flower finely boulted, with a quantity of Aniſeedes a little bruiſed, and mingle all together; then take two egges and beate them very well, whites and all; then put in the mingled ſtuffe aforeſaid, and beate all together a good while, then put it into a mould, wiping the bottome euer firſt with butter to make it come out eaſily, and in the baking turne it once or twice as you ſhall haue occaſion, and ſo ſerue it whole, or in ſlices at your pleaſure.

To preſerue Quinces for kitchin ſeruice.

Take ſweete Apples and ſtampe them as you doe for Cider, then preſſe them through a bagge as you doe verjuyce; then put it into a ferkin wherein you will keepe your Quinces, and then gather your Quinces, and wipe them cleane, and neither chore them nor pare them, but onely take the blacks from the tops, and ſo put them into the ferkin of Cider, and therein you may keepe them all the yeere very faire, and take them not out

of

of the liquor, but as you are ready to vſe them, whether it be for pies, or any other purpoſe, and then pare them, and chore them as you thinke good.

Take a gallon of Claret or White-wine, and put therein foure ounces of Ginger, an ounce and a halfe of Nutmegs, of Cloues one quarter, of Sugar foure pound; let all this ſtand together in a pot at leaſt twelue houres, then take it, and put it into a cleane bagge made for the purpoſe, ſo that the wine may come with good leaſure from the ſpices. To make Ipocras.

Take Quinces and wipe them very cleane, and then chore them, and as you chore them, put the chores ſtraight into faire water, and let the chores and the water boyle; when the water boyleth, put in the Quinces vnpared, and let them boyle till they be tender, and then take them out and pare them, and euer as you pare them, put them ſtraight into ſugar finely beaten: then take the water they were ſodden in, & ſtraine it through a faire cloth, and take as much of the ſame water as you thinke will make ſirrup enough for the Quinces, and put in ſome of your ſugar and let it boile a while, and then put in your Quinces, and let them boyle a while, and turne them, and caſt a good deale of ſugar vpon them; they muſt ſeeth a pace, and euer as you turne them, couer them ſtill with ſugar, till you haue beſtowed all your ſugar; and when you thinke that your Quinces are tender enough, take them forth, and if your ſirrup be not ſtiffe enough, you may ſeeth it againe after the Quinces are forth. To euery pound of Quinces you muſt take more then a pound of ſugar: for the more ſugar you take, the fairer your Quinces will bee, and the better and longer they will be preſerued. To preſerue quinces.

Conserue of Quinces.

Take two gallons of faire water, and set it on the fire, and when it is luke-warme, beate the whites of fiue or six egges, and put them into the water, and stirre it well, and then let the water seeth, and when it riseth vp all on a curd, then scumme it off: Take Quinces and pare them, and quarter them, and cut out the chores: then take as many pound of your Quinces as of your sugar, and put them into your liquor, and let it boyle till your liquor be as high coloured as French Wine, and when they be very tender, then take a faire new canuase cloth faire washt, and straine your Quinces through it with some of your liquor; (if they will not goe through easily,) then if you will make it very pleasant, take a little Muske, and lay it in Rose-water, and put it thereto; then take and seeth it, vntill it bee of such substance, that when it is cold, it will cut with a knife; and then put it into a faire boxe, and if you please, lay leafe-gold thereon.

To keepe Quinces all the yeere.

Take all the parings of your Quinces that you make your Conserue withall, and three or foure other Quinces, and cut them in peeces, and boile the same parings, and the other peeces in two or three gallonds of water, and so let them boyle till all the strength bee sodden out of the sayd Quinces and parings, and if any skumme arise whilest it boyles, take it away: then let the sayd water runne thorough a strayner into a faire vessell, and set it on the fire againe, and take your Quinces that you will keepe, and wipe them cleane, and cut off the vttermost part of the said Quinces, and picke out the kernels and chores as cleane as you can, and put them into the said liquor, and so let them boile till they be a little soft, and then take them from the fire, and let them stand till they be cold, then

then take a little barrell, and put into the ſaid barrell, the water that your Quinces be ſodden in; then take vp your Quinces with a ladle, and put them into your barrell, and ſtop your barrell cloſe that no ayre come into them, till you haue fit occaſion to vſe them; and bee ſure to take ſuch Quinces as are neither bruiſed nor rotten.

Fine Ginger Cakes.

Take of the beſt ſugar, and when it is beaten ſearſe it very fine, and of the beſt Ginger and Cinamon, then take a little Gum-dragon and lay it in roſewater all night, then poure the water from it, and put the ſame with a little White of an Egge well beaten into a braſſe morter, the Sugar, Ginger, Cinamon and all together, and beate them together till you may worke it like paſt; then take it and driue it forth into Cakes, and print them, and lay them before the fire, or in a very warme Stoue to bake. Or otherwiſe, take Sugar and Ginger (as is before ſaid) Cinamon and Gum-dragon excepted, in ſtead whereof, take onely the Whites of Eggs and ſo doe as was before ſhewed you.

To make Buckets.

Take Curds, the paring of Lemons, of Oranges or Pouncithrons, or indeede any halfe-ripe greene fruite, and boyle them till they be tender in ſweete Worte; then make a firrop in this ſort: take three pound of Sugar, and the whites of foure Eggs, and a gallon of water, then ſwinge and beate the water and the Eggs together, and then put in your Sugar, and ſet it on the fire, and let it haue an eaſier fire, and ſo let it boyle ſixe or ſeuen walmes, and then ſtraine it thorow a cloth, and let it ſeeth againe till it fall from the ſpoone, and then put it into the rindes or fruits.

Course Ginger-bread.

Take a quart of Hony clarified, and ſeeth it till it bee browne, and if it be thicke, put to it a diſh of water:

then take fine crummes of white bread grated, and put to it, and ſtirre it well, and when it is almoſt cold, put to it the powder of Ginger, Cloues, Cinamon, and a little Licoras and Aniſeedes: then knead it, and put it into moulds and print it: ſome vſe to put to it alſo a little pepper, but that is according vnto taſte and pleaſure.

To candy any roote, fruite or flower.

Diſſolue Sugar, or ſugar-candy in Roſe-water, boile it to an height, put in your rootes, fruits or flowers, the ſirrop being cold, then reſt a little, after take them out and boyle the ſirrop againe, then put in more roots, &c. then boile the ſirrop the third time to an hardneſſe, putting in more ſugar but not Roſe-water, put in the roots, &c. the ſirrop being cold and let them ſtand till they candie.

Ordering of banquets.

Thus hauing ſhewed you how to Preſerue, Conſerue, candy, and make paſts of all kinds, in which foure heads conſiſts the whole art of banqueting diſhes; I will now proceed to the ordering or ſetting foorth of a banquet, where in you ſhall obſerue, that March-panes haue the firſt place, the middle place, and laſt place: your preſerued fruites ſhall be diſht vp firſt, your paſts next, your wet ſuckets after them, then your dried ſuckets, then your Marmelades and Goodiniakes, then your comfets of all kinds. Next, your peares, apples, wardens back't, raw or roaſted, and your Oranges and Leamons ſliced, and laſtly your Wafer-cakes. Thus you ſhall order them in the cloſet: but when they goe to the table, you ſhall firſt ſend foorth a diſh made for ſhew onely, as Beaſt, Bird, Fiſh, Fowle, according to inuention: then your Marchpane, then preſerued Fruite, then a Paſte, then a wet ſucket, then a dry ſucket, Marmelade, comfets, apples, peares, wardens, oranges and lemmons ſliced; and then wafers, and another diſh of preſerued

fruites,

fruites, and ſo conſequently all the reſt before: no two diſhes of one kind going or ſtanding together, and this will not onely appeare delicate to the eye, but inuite the appetite with the much variety thereof.

Now we haue drawne our *Houſe-wife* into theſe ſeuerall Knowledges of Cookery, in as much as in her is contained all the inward offices of houſhold, we will proceede to declare the manner of ſeruing and ſetting forth of meate for a great Feaſt, and from it deriue meaner, making a due proportion of all things: for what auailes it our good *Houſe-wife* to bee neuer ſo skilfull in the parts of cookery, if ſhe want skill to marſhall the diſhes, and ſet euery one in his due place, giuing precedency according to faſhion and cuſtome: It is like to a Fencer leading a band of men in rout, who knowes the vſe of the weapon, but not how to put men in order. It is then to be vnderſtood, that it is the office of the clerke of the Kitchin (whoſe place our *Houſe wife* muſt many times ſupply) to order the meate at the Dreſſer, and deliuer it vnto the Sewer, who is to deliuer it to the Gentlemen and Yeomen-waiters to beare to the table. Now becauſe wee allow no Offices but our *Houſe-wife*, to whom we onely ſpeake in this Booke, ſhee ſhall firſt marſhall her ſallets, deliuering the grand ſallet firſt, which is euermore compound: then greene Sallets, then boyld ſallets, then ſome ſmaller compound ſallets. Next vnto ſallets ſhe ſhall deliuer foorth all her fricaſes, the ſimple firſt, as collops, rathers, and ſuch like: then compound fricaſes, after them all her boyld meats in their degree, as ſimple broths, ſtewd-broth, and the boylings of ſundry fowles. Next them all ſorts of roſt-meates, of which the greateſt firſt, as chine of Beefe, or ſurloyne, the gigget or Legges of Mutton, Gooſe, Swan,

Ordering of great Feaſts, and proportion of expence.

Veale,

Veale, Pig, Capon, and ſuch like. Then bak't-meates, the hot firſt, as Fallow-deere in Paſty, Chicken, or Calues foote-pie and Douſet. Then cold bak't meates, Pheaſant, Partidges, Turkie, Gooſe, Woodcocke, and ſuch like. Then laſtly, Carbonados both ſimple and compound. And being thus marſhald from the Dreſſer, the Sewer vpon the placing them on the table, ſhall not ſet them downe as he receiued them, but ſetting the Sallets extrauagantly about the table, mixe the Fricaſes about them; then the boild meates amongſt the Fricaſes, roſt meates amongſt the boild, bak't meates amongſt the roſt, and Carbonados amongſt the bak't; ſo that before euery trencher may ſtand a Sallet, a Fricaſe, a Boild meate, a Roſt meate, a Bak't meat, and a Carbonado, which will both giue a moſt comely beauty to the table, and very great contentment to the Gueſſe. So likewiſe in the ſecond courſe ſhe ſhall firſt preferre the leſſer wild-fowle, as Mallard, Tayle, Snipe, Plouer, Woodcocke, and ſuch like: then the leſſer land-fowle; as Chicken, Pigeons, Partridge, Raile, Turky, Chickens, young Pea-hens, and ſuch like.

Then the greater wild-fowle; as Bitter, Hearne, Shoueler, Crane, Buſtard, and ſuch like. Then the greater land fowles; as Peacocks, Pheaſant, Puets, Gulles, and ſuch like. Then hot bak't-meates; as Marrybone-pie, Quince-pie, Florentine, and Tarts.

Then cold bak't meates, as Red-deere, Hare-pie, Gammon of Bacon-pie, wild Bore, Roe-pie, and ſuch like, and theſe alſo ſhall bee marſhald at the Table, as the firſt courſe not one kind all together, but each ſeuerall ſort mixt together, as a leſſer wild-fowle and a leſſer land-fowle; a great wild-fowle, and a great land-fowle; a hot bak't meate and a cold: and for made

diſhes

dishes and Quelquechoses, which relie on the inuention of the Cooke, they are to bee thrust in into euery place that is emptie, and so sprinkled ouer all the table: and this is the best method for the extraordinary great feasts of Princes. But in case it be for much more humble meanes; then lesse care and fewer dishes may discharge it: yet before I proceede to that lower rate, you shall vnderstand, that in these great Feasts of Princes, though I haue mentioned nothing but flesh, yet is not fish to be exempted; for it is a beauty and an honour vnto euery Feast, and is to be placed amongst all the seuerall seruices, as thus; as amongst your Sallets all sorts of souled-fish that liues in the fresh water; amongst your Fricases all manner of fride-fish; amongst your boyld-meates, all fish in broaths; amongst your rost-meates, all fish serued hot, but drie; amongst the bak't-meates, and sea-fish that is soust, as Sturgion and the like; and amongst your Carbonados, fish that is broild. As for your second course, to it belongeth all manner of shell-fish, either in the shell, or without; the hot to goe vp with the hot meate, and the cold with the cold.

And thus shall the Feast bee royall, and the seruice worthy.

Now for a more humble Feast, or an ordinary proportion which any good man may keepe in his family for the entertainment of his true and worthy friends, it must hold limitation with his prouision, and the season of the yeere: for Summer affords what Winter wantes, & Winter is master of that which Summer can but with difficulty haue: it is good then for him that intends to feast, to set downe the full number of his full dishes, that is, dishes of meate that are of substance, and not emptie or for shew; and of these sixteene is a

good

good proportion for one course vnto one messe, as thus for example, First, a shield of Brawne with mustard: Secondly, a boyld capon; Thirdly, a boyld peece of Beefe: Fourthly, a chine of beefe rosted: Fiftly, a neates tongue rosted: Sixtly, a Pigge rosted: Seuenthly, chewets bak't: Eightly, a goose rosted: Ninethly, a swan rosted: Tenthly, a turkey rosted; the eleuenth, a haunch of venison rosted; the twelfth, a pasty of venison; the thirteenth, a Kid with a pudding in the belly; the fourteenth, an olive pye; the fifteenth, a couple of capons; the sixteenth, a custard or doucets. Now to these full dishes may be added in sallets, fricases, quelquechoses, and deuised paste, as many dishes more, which make the full seruice no lesse then two and thirty dishes, which is as much as can conueniently stand on one table, and in one messe: and after this manner you may proportion both your second and third course, holding fulnesse in one halfe of the dishes, and shew in the other, which will be both frugall in the spendor, contentment to the guest, and much pleasure and delight to the beholders. And thus much touching the ordering of great feasts and ordinary contentments.

Chap. 3.

Of Distillations, and their vertues, and of perfuming.

When our English *House-wife* is exact in these rules before rehearsed, and that she is able to adorne and beautifie her table, with all the vertuous illustrations meet for her knowledge; she shall then soit her mind to the vnderstanding of other Housewifely secrets, right profitable and meete for her vse, such

ſuch as the want thereof may trouble her when need, or time requires.

OF

Therefore firſt I would haue her furniſh her ſelfe of very good Stils, for the diſtillation of all kinds of Waters, which ſtils would either be of Tinne, or ſweete Earth, and in them ſhe ſhall diſtill all ſorts of waters meete for the health of her Houſhold, as ſage water, which is good for all Rhumes and Collickes; Radiſh water, which is good for the ſtone, Angelica water good for infection, Celadine water for ſore eyes, Vine water for itchings, Roſe water, and Eye-bright water for dim ſights, Roſemary water for Fiſtuloes, Treacle water for mouth cankers, water of cloues for paine in the ſtomacke, Saxifrage water for grauell and hard vrine, Allum water for old Vlcers, and a world of others, any of which will laſt a full yeare at the leaſt: Then ſhe ſhall know that the beſt waters for the ſmoothing of the skinne, and keeping the face delicate and amiable, are thoſe which are diſtilled from Beane-flowers, from Strawberries, from Vine leaues, from Goates-milke, from Aſſes milke, from the whites of Egges, from the flowers of Lillies, from Dragons, from calues feete, from bran, or from yelkes of Egges, any of which will laſt a yeare or better.

The nature of waters.

Additions, to diſtillations.

First diſtill your water in a ſtillatory, then put it in a glaſſe of great ſtrength, and fill it with thoſe flowers againe (whoſe colour you deſire) as full as you can, and ſtop it, and ſet it in the ſtillatory againe, and let it diſtill, and you ſhall haue the colour you diſtill.

To diſtill water of the colour of the heare or flower you deſire.

Take of Roſemary flowers two handfuls, of Maria rome, Winter-ſauory, Roſemary, Rew, vnſet time, Germander, Rybworte, Harts tongue, Mouſeare, White wormewood, Bugloſſe, red ſage, Liuer-worte, Hoare-hound,

To make Aqua vitæ.

hound, fine Lauender, Iſſop-cropps, Penny royall, Red fennell, of each of theſe one handfull: of Elycompane rootes, cleane pared and ſliced, two handfuls: Then take all theſe aforeſayd and ſhred them, but not waſh them, then take foure gallons and more of ſtrong Ale, and one gallon of ſacke lees, and put all theſe aforeſayd hearbes ſhred into it, and then put into it one pound of Licoras bruiſed, halfe a pound of Anyſeeds cleane ſifted and bruiſed, and of Mace and Nutmegs bruiſed of each one ounce: then put altogether into your ſtilling pot cloſe couered with Rye paſte, and make a ſoft fire vnder your pot, and as the head of the Limbecke heateth, draw out your hot water and put in cold, keeping the head of your Limbecke ſtill with cold water, but ſee your fire be not too raſh at the firſt, but let your water come at leaſure; and take heed vnto your ſtilling that your water change not white: for it is not ſo ſtrong as the firſt draught is; and when the water is diſtilled, take a gallon glaſſe with a wide mouth, and put therein a pottle of the beſt water and cleereſt, and put into it a pottle of Roſa-ſolis, halfe a pound of Dates bruiſed, and one ounce of graines, halfe a pound of Sugar, halfe an ounce of ſeed-pearle beaten, three leaues of fine gold, ſtirre all theſe together well, then ſtop your glaſſe and ſet it in the ſunne the ſpace of one or two moneths, and then clarifie it and vſe it at your diſcretion: for a ſpoonfull or two at a time is ſufficient, and the vertues are infinite.

Another excellen. Aquavitæ. Fill a pot with red wine cleane and ſtrong, and put therein the powders of Camomile, Gilli-flowers, Ginger, Pellitory, Nutmeg, Gailengall, Spicknard, Quenebits, graines of pure long pepper, blacke Pepper, Com-

Commin, Fennell seede, Smalledge, Parsley, Sage, Rew, Mint, Calamint and Horshow, of each of them a like quantity, and beware they differ not the weight of a dramme vnder or aboue: then put all the pouders aboue sayd into the wine, and after put them into the distilling pot, and distill it with a soft fire, and looke that it be well luted about with Rye paste, so that no fume or breath goe foorth, and looke, that the fire be temperate: also receiue the water out of the Lymbecke into a glasse vyall. This water is called the water of Life, and it may be likened to Balme, for it hath all the vertues and properties which Balme hath: this water is cleere and lighter then Rose water, for it will fleet aboue all liquors, for if oyle be put aboue this water, it sinketh to the bottome. This water keepeth flesh and fish both raw and sodden in his owne kind and state, it is good against aches in the bones, the poxe, and such like, neither can any thing kept in this water rot or putrifie, it doth draw out the sweetenesse, sauour, and vertues of all manner of spices, rootes and hearbes that are wet or layd therein, it giues sweetnesse to all manner of water that is mixt with it, it is good for all manner of cold sicknesses, and namely for the palsie or trembling ioynts, and stretching of the sinewes; it is good against the cold goute, and it maketh an old man seeme young, vsing to drinke it fasting, and lastly it fretteth away dead flesh in wounds, and killeth the canker.

To make aqua composita.

Take Rosemary, Time, Issop, Sage, Fennell, Nip, rootes of Elicompane, of each an handfull, of Marierum and Peny-royall of each halfe a handfull, eight slips of red Mint, halfe a pound of Licoras, halfe a pound of Aniseeds, and two gallons of the best Ale that can bee brewed, wash all these hearbes cleane, and put into the

the Ale, Licoras, Aniſeeds, and herbes into a cleane braſſe pot, and ſet your limbecke thereon, and paſte it round about that no ayre come out, then diſtill the water with a gentle fire, and keepe the limbecke coole aboue, not ſuffering it to runne too faſt; and take heede when your water changeth colour, to put another glaſſe vnder, and keepe the firſt water, for it is moſt precious, and the latter water keepe by it ſelfe, and put it into your next pot, and that ſhall make it much better.

☞ A very principall aqua compoſita.

Take of balme, of Roſemary Flowers tops and all, of dried red Roſe leaues, of penny-royall, of each of theſe a handfull, one roote of Elycompane the whiteſt that can be got, three quarters of a pound of Licoras, two ounces of Cinamon, two drams of great Mace, two drams of Gallendgall, three drams of Coliander ſeeds three drammes of Carraway ſeeds, two or three Nutmegges cut in foure quarters, an ounce of Aniſeeds, a handfull of Borage; you muſt chuſe a faire Sunny day, to gather the hearbs in; you muſt not waſh them, but cut them in ſunder, and not too ſmall; then lay all your hearbs in ſouſe all night and a day, with the ſpices groſly beaten or bruiſed, and then diſtill it in order aforeſaid, this was made for a learned Phiſitians owne drinking.

To make the emperiall water.

Take a gallond of Gaſcoine-wine, Ginger, Gallendgall, Nutmegs, Grains, Cloues, Aniſeeds, Fennell ſeeds, Carraway ſeeds, of each one dramme, then take Sage, Mints, Red roſes, Time, Pellitory, Roſemary, Wild-time Camomile, and Lauender, of each a handfull, then bray the ſpices ſmall, and the hearbs alſo, and put all together into the wine, and let it ſtand ſo twelue houres, ſtirring it diuers times, then diſtill it with a limbecke, and keepe the firſt water, for it is beſt: of a gallond of wine

wine you must not take aboue a quart of water; this water comforteth the vitall spirits, and helpeth inward diseases that commeth of cold, as the palsey, the contraction of sinewes, also it killeth wormes, and comforts the stomacke; it cureth the cold dropsie, helpes the stone, the stinking breath, & maketh one seeme yong.

To make Cinamon water.

Take a pottell of the best Sack, and halfe a pint of Rose water, a quarter and halfe of a pound of good Cinamon well bruised, but not small beaten; distill all these together in a glasse-still, but you must carefully looke to it, that it boyle not ouer hastily, and attend it with cold wet cloathes to coole the top of the still if the water should offer to boyle too hastily. This water is very soueraigne for the stomacke, the head, and all the inward parts; it helps digestion, and comforteth the vitall spirits.

Sixe most pretious waters, which *Hypocrates* made, and sent to a Queene sometimes liuing in England.

1 Take Fennell, Rew, Veruine, Endiue, Betony, Germander, Red rose, Capillus Veneris, of each an ounce; stampe them and keepe them in white wine a day and a night; and distill water of them, which water will diuide in three parts, the first water you shall put in a glasse by it selfe, for it is more pretious then gold, the second as siluer, and the third as Balme, and keepe these three parts in glasses: this water you shall giue the rich for gold, to meaner for siluer, to poore men for Balme: this water keepeth the sight in cleareneſſe, and purgeth all grosse humors.

2 Take *Salgemma* a pound, and lappe it in a greene docke leafe, and lay it in the fire till it be will softed, and waxe white, and put it in a glasse against the ayre a night, and on the morrow it shall bee turned to a white water like vnto Christall: keepe this water well in a glasse, and put a drop into the eie, and it shall clense

and sharpe the sight: it is good for any euill at the heart, for the morphew, and the canker in the mouth, and for diuers other euills in the body.

3 Take the roots of Fennell, Parseley, Endiue, Betony, of each an ounce, and first wash them well in luke-warme water, and bray them well with white wine a day and a night, and then distill them into water: this water is more worthy then Balme; it preserueth the sight much, and clenseth it of all filth, it restrayneth teares, and comforteth the head, and auoideth the water that commeth through the payne in the head.

4 Take the seed of Parsley, Achannes, Vermine, Carawaies, and Centuary, of each ten drams; beate all these together, and put it in warme water a day and a night, and put it in a vessell to distill: this water is a pretious water for all sore eies, and very good for the health of man or womans body.

5 Take limmell of gold, siluer, lattin, copper, iron, steele, and lead; and take lethurgy of gold and siluer, take Calamint and Columbine, and steepe all together, the first day in the vrine of a man-child, that is between a day & a night, the second day in white wine, the third day in the iuice of fenell, the fourth day in the whites of egs, the fift day in the womans milke that nourisheth a man-child, the sixt day in red wine, the seuenth day in the whites of egges, and vpon the eight day bind all these together, and distill the water of them, and keepe this water in a vessell of gold or siluer: the vertues of this water are these, first it expelleth all rhumes, and doth away all manner of sickenesse from the eyes, and weares away the pearle, pin and webbe; it draweth againe into his owne kinde the eye-lidds that haue beene bleared, it easeth the ache of the head, and if a man

drinke

drinke it, maketh him looke young euen in old age, beſides a world of other moſt excellent vertues.

6 Take the Gold-ſmiths ſtone, and put it into the fire, till it be red-hot, and quench it in a pint of white wine, and doe ſo nine times, and after grind it, and beate it ſmall, and cleanſe it as cleane as you may, and after ſet it in the Sunne with the water of Fennell diſtilled, and Veruine, Roſes, Celladine and Rew, and a little Aquauite, and when you haue ſprinkled it in the water nine times, put it then in a veſſell of glaſſe, and yet vpon a reuerſion of the water diſtill it, till it paſſe ouer the touch foure or fiue inches; and when you will vſe it then ſtirre it all together, and then take vp a drop with a feather, and put it on your naile, & if it abide, it is fine and good: then put it in the eye that runneth, or annoint the head with it if it ake, and the temples, and beleeue it, that of all waters this is the moſt pretious, and helpeth the ſight, or any paine in the head.

The vertues of ſeuerall waters.

The water of Chernyle is good for a ſore mouth.

The water of Callamint is good for the ſtomacke.

The water of Planten is good for the fluxe, and the hot dropſie.

Water of Fennell is good to make a fat body ſmall, and alſo for the eyes.

Water of Violets is good for a man that is ſore within his body and for the raynes and for the liuer.

Water of Endiue is good for the dropſy, and for the iaundiſe, and the ſtomacke.

Water of Borage is good for the ſtomacke, and for the Iliaca paſſio, and many other ſickneſſes in the body.

Water of both Sages is good for the palſey.

Water of Bettony, is good for old age and all inward ſickneſſes.

Water of Radish drunke twice a day, at each time an ounce, or an ounce and a halfe, doth multiply and prouoke lust, and also prouoketh the tearmes in women.

Rosemary water (the face washed therein both morning and night) causeth a faire and cleere countenance: also the head washed therewith, and let dry of it selfe, preserueth the falling of the haire, and causeth more to grow; also two ounces of the same drunke, driueth venome out of the body in the same sort as Methridate doth; the same twice or thrice drunke at each time halfe an ounce, rectifieth the mother, and it causeth women to bee fruitfull: when one maketh a Bath of this decoction, it is called the Bath of life; the same drunke comforteth the heart, the brayne, and the whole body, and cleanseth away the spots of the face; it maketh a man looke young, and causeth women to conceiue quickely, and hath all the vertues of Balme.

Water of Rew drunke in a morning foure or fiue daies together, at each time an ounce, purifieth the flowers in women: the same water drunke in the morning fasting, is good against the gryping of the bowels, and drunke at morning and at night, at each time an ounce, it prouoketh the tearmes in women.

The water of Sorrell drunke is good for all burning and pestilent feuers, and all other hot sicknesses: being mixt with beere, ale or wine, it slacketh the thirst: it is also good for the yellow Iaundise, being taken sixe or eight dayes together: it also expelleth from the liuer if it be drunke, and a cloth wet in the same and a little wrong out, and so applied to the right side ouer against the liuer, and when it is dry then wet another, and apply

apply it; and thus doe three or foure times together.

Lastly the water of Angelica is good for the head, for inward infection, either of the plague or pestilence, it is very soueraigne for sore breasts; also the same water being drunke of twelue or thirteene daies together, is good to vnlade the stomack of grosse humours and superfluities, and it strengthneth and comforteth all the vniuersall parts of the body: and lastly, it is a most soueraigne medicine for the gout, by bathing the diseased members much therein.

Now to conclude and knit vp this chapter, it is meete that our houſ-wife know that from the eight of the Kalends of the moneth of Aprill vnto the eight of the Kalends of Iuly, all manner of hearbes and leaues are in that time most in strength and of the greatest vertue to be vsed and put in all manner of medicines, also from the eight of the Kalends of Iuly, vnto the eight of the Kalends of October the stalks, stems and hard branches of euery hearbe and plant is most in strength to be vsed in medicines; and from the eight of the Kalends of October, vnto the eight of the Kalends of Aprill, all manner of roots of hearbs and plants are the most of strength and vertue to be vsed in all manner of medicines.

An excellent water for perfume.

To make an excellent sweet water for perfume, you shall take of Basill, Mints, Marierum, Corne-flagge-rootes, Isſop, Sauory, Sage, Balme, Lauender & Rosemary, of each one handfull, of Cloues, Cinamon and Nutmegs of each haife an ounce, then three or foure Pome-citrons cut into slices, infuse all these into Damaske-rose water the space of three dayes, and then distill it with a gentle fire of Char-coale, then when you haue put it into a very cleane glasse, take of fat Muske, Ciuet,

and Ambergreece of each the quantity of a ſcruple, and put into a ragge of fine Lawne, and then hang it within the water: This being either burnt vpon a hot pan, or elſe boyled in perfuming pans with Cloues, Bay-leaues and Lemmon-pils, will make the moſt delicateſt perfume that may be without any offence, and will laſt the longeſt of all other ſweet perfumes, as hath been found by experience.

To perfume Gloues.

To perfume gloues excellently, take the oyle of ſweet Almonds, oyle of Nutmegs, oyle of Beniamin, of each a dramme, of Ambergreece one graine, fat Muske two graines: mixe them all together and grind them vpon a painters ſtone, and then annoint the gloues therewith: yet before you annoint them let them be dampiſhly moiſtned with Damaske Roſe-water.

To perfume a Ierkin.

To perfume a Ierkin well, take the oyle of Beniamin a penny-worth, oyle of Spike, and oyle of Oliues halfe penny-worths of each, and take two ſpunges and warme one of them againſt the fire and rub your Ierkin therewith, and when the oyle is dried, take the other ſpunge and dip it in the oyle and rub your Ierkin therewith till it be dry, then lay on the perfume before preſcribed for gloues.

To make waſhing Balls.

To make very good waſhing bals, take Storax of both kindes, Beniamin, Calamus Aromaticus, Labdanum of each a like, and bray them to pouder with Cloues and Arras, then beate them all with a ſufficient quantity of Sope till it bee ſtiffe, then with your hand you ſhall worke it like paſte, and make round balls thereof.

To make a muske Ball.

To make Muske balls, take Nutmegs, Mace, Cloues, Saffron and Cinamon, of each the waight of two-pence, & beate it to fine pouder, of Maſticke the waight of

of two-pence halfe penny, of Storax the waight of fix-pence; of Labdanum the waight of tenne-pence; of Ambergreece the waight of fix-pence; and of Muske foure graines, diſſolue and worke all theſe in hard ſweete ſope till it come to a ſtiffe paſte, and then make balls thereof.

To make a good perfume to burne, take Beniamin one ounce, Storaxe, Calamint two ounces, of Maſtick, white Ambergreece, of each one ounce, Ireos, Calamus Aromaticus, Cypreſſe-wood, of each halfe an ounce, of Camphire one ſcruple, Labdanum one ounce: beate all theſe to ponder, then take of Sallow Charcole ſixe ounces, of liquid Storax two ounces, beate them all with Aquauita, and then ſhall you role them into long round rolles. A perfume to burne.

To make Pomanders, take to penny-worth of Labdanum two penny-worth of Storax liquid, one penny-worth of Calamus Aromaticus, as much Balme, halfe a quarter a pound of fine waxe, of Cloues and Mace two penny-worth, of liquid Aloes three penny-worth, of Nutmegs eight peny-worth, and of Muske foure grains; beate all theſe exceedingly together till they come to a perfect ſubſtance, then mould it in any faſhion you pleaſe and dry it. To make Pomanders.

To make excellent ſtrong Vinegar, you ſhall brew the ſtrongeſt Ale that may be, and hauing tunned it in a very ſtrong veſſell, you ſhall ſet it either in your garden or ſome other ſafe place abroad, where it may haue the whole Summers day Sun to ſhine vpon it, and there let it lie till it be extreame ſowre, then into a Hogſhead of this Vinegar put the leaues of foure or fiue hundred Damaske Roſes, and after they haue layen for the ſpace of a moneth therein, houſe the Vi- To make Vinegar.

negar and draw it as you neede it.

To make dry vinegar.

To make drie Vinegar which you may carry in your pocket, you ſhall take the blades of greene corne either Wheat or Rie, and beate it in a morter with the ſtrongeſt Vinegar you can get till it come to a paſte; then role it into little balls, and dry it in the Sunne till it be very hard, then when you haue any occaſion to vſe it, cut a little peece thereof and diſſolue it in wine, and it will make a ſtrong Vinegar.

To make Veriuyce.

To make Veriuyce, you ſhall gather your Crabbs as ſoone as the kernels turne blacke, and hauing layd them a while in a heape to ſweate together, take them and picke them from ſtalkes, blackes and rottenneſſe: then in long troughs with beetles for the purpoſe, cruſh and breake them all to maſh: then make a bagge of courſe haire cloth as ſquare as the preſſe, and fill it with the cruſht Crabs; then put it into the preſſe, and preſſe it while any moyſture will drop forth, hauing a cleane veſſell vnderneath to receiue the liquor: this done, tun it vp into ſweet Hogſheads, and to euery Hogſhead put halfe a dozen handfuls of Damaske Roſe leaues, and then bung it vp, and ſpend it as you ſhall haue occaſion.

Many other pretty ſecrets there are belonging vnto curious *Houſ-wiues*, but none more neceſſary then theſe already rehearſed, except ſuch as ſhall hereafter follow in their proper places.

☞ Additions to conceited ſecrets.

To make ſweet powder for baggs.

Take of Arras ſixe ounces, of Damaske Roſe-leaues as much, of Marierom and ſweete Baſill, of each an ounce, of Cloues two ounces, yellow Saunders two ounces, of Citron pills ſeuen drammes, of Lignum-aloes one ounce, of Beniamin one ounce, of Storaxe one ounce, of Muske one dram: bruiſe all theſe, and put them

them into a bagge of ſilke or linnen, but ſilke is the beſt.

To make ſweete bags.

Take of Arras foure ounces, of Gallaminis one ounce, of Ciris halfe an ounce, of Roſe leaues dried two handfuls, of dryed Marierum one handfull, of Spike one handfull, Cloues one ounce, of Beniamin and Storax of each two ounces, of white Saunders and yellow of each one ounce: beate all theſe into a groſſe pouder, then put to it Muske a dramme, of Ciuet halfe a dramme, and of Ambergreece halfe a dramme; then put them into a Taffata bagge and vſe it.

How to make ſweet water.

Take of bay-leaues one handfull, of Red Roſes two handfuls, of Damaske Roſes three handfull, of Lauender foure handfuls, of baſill one handfull, Mariorum two handfuls, of Camomile one handfull, the young tops of ſweete briar two handfuls, of Mandelion-tanſey two handfuls, of Orange pils ſixe or ſeuen ounces, of Cloues and Mace a groats-worth put all theſe together in a pottle of new Ale in cornes for the ſpace of three daies, ſhaking it euery day three or foure times, then diſtill it the fourth day in a ſtill with a continuall ſoft fire, and after it is diſtilled, put into it a graine or two of muske.

A very rare and pleſant Damaſk water.

Take a quart of malmſey Lees, or a quart of malmſey ſimply, one handfull of margerome, of Baſill as much, of Lauender foure handfuls, bay-leaues one good handfull, Damaske roſe Leaues foure handfuls, and as many of red, the pils of ſixe Orenges, or for want of them one handful of the tender Leaues of walnut-trees, of Beniamine halfe an ounce, of Callamus Aramaticus as much, of Cami hire foure drammes, of Cloues one ounce, of Baldamum halfe an ounce; then take a pottle of running water, and put in all theſe ſpices bruiſed into your water and malmſey together in a cloſe

cloſe ſtopped pot, with a good handfull of Roſemary, and let them ſtand for the ſpace of ſixe dayes: then diſtill it with a ſoft fire: then ſet it in the Sunne ſixteene dayes with foure graines of Muske bruiſed. This quantity will make three quarts of water, *Probatum eſt.*

To make the beſt vinegar.

Take and brew very ſtrong Ale, then take halfe a dozen gallons of the firſt running, and ſet it abroade to coole, and when it is cold, put yeſt vnto it, and head it very ſtrongly: then put it vp in a ferkin, and diſtill it in the Sunne: then take foure or fiue handfull of Beanes, and parch them in a pan till they burſt: then put them in as hot as you can into the Ferkin, and ſtop it with a little clay about the bung-hole: then take a handfull of cleane Rye Leauen and put in the Ferkin; then take a quantity of Barberies, and bruiſe and ſtraine them into the Ferkin, and a good handfull of Salt, and let them lie and worke in the Sunne from May till Auguſt: then hauing the full ſtrength, take Roſe leaues and clip the white ends off, and let them dry in the Sunne; then take Elder-flowers and picke them, and dry them in the Sunne, and when they are dry, put them in bagges, and keepe them all the Winter: then take a pottle-pot, and draw forth a pottle out of the Ferkin into the bottle, and put a handfull of the red Roſe-leaues, and another of the Elder-flowers, and put into the bottle, and hang it in the Sunne, where you may occupie the ſame, and when it is empty, take out all the leaues, and fill it againe as you did before.

To perfume Gloues.

Take *Angelica* water and Roſe-water, and put into them the powder of Cloues, Amber-greece, Muske and Lignum Aloes, Beniamine and Callamus Aramatticus: boyle theſe till halfe be conſumed: then ſtraine it, and put your Gloues therein; then hang them in the ſunne

ſunne to dry, and turne them often: and thus three times wet them, and dry them againe: Or otherwiſe, take Roſe-water and wet your Gloues therein, then hang them vp till they be almoſt dry; then take halfe an ounce of Beniamine, and grind it with the oyle of Almonds, and rub it on the Gloues till it be almoſt dried in: then take twenty graines of Amber-greece, and twenty graines of Muske, and grind them together with oyle of Almonds, and ſo rub it on the Gloues, and then hang them vp to dry, or let them dry in your boſome, and ſo after vſe them at your pleaſure.

Chap. 4.

The ordering, preſeruing and helping of all ſorts of Wines, and firſt of the choyce of ſweete Wines.

I Doe not aſſume to my ſelfe this knowledge of the Vintners ſecrets, but ingeniouſly confeſſe that one profeſt skillfull in the Trade, hauing rudely written, and more rudely diſcloſed this ſecret, & preferring it to the Stationer it came to me to be poliſhed, which I haue done, knowing that it is neceſſary, &c.

It is neceſſary that our *Engliſh Houſe-wife* be skilfull in the election, preſeruation and curing of all ſorts of Wines, becauſe they be vſuall charges vnder her hands, and by the leaſt neglect muſt turne the Husband to much loſſe: therefore to ſpeake firſt of the election of ſweete Wines, ſhe muſt be carefull that her Malmſeys be full Wines, pleaſant, well hewed and fine: that Baſtard be fat, and if it be tawny it skils not, for the tawny Baſtards be alwayes the ſweeteſt. Muskadine muſt bee great, pleaſant and ſtrong, with a ſweet ſent, and with Amber colour. Sacke if it be Seres (as it ſhould bee) you

you shall know it by the marke of a corke burned on one side of the bung, and they be euer full gadge, and so are no other sackes, and the longer they lye, the better they be.

To make Muscadine, and giue it a flauer.

Take a pleasant But of Malmsey, and draw it out a quarter and more; then fill it vp with fat Basterd within eight gallons, or thereabouts, and parill it with sixe egges, yelkes and all, one handfull of Bay-salt, and a pint of cunduit water to euery parill, and if the wine be nye of colour, put in three gallons of new milke, but skimm off the Creame first, and beate it well, or otherwise, if you haue a good butt of Malmsey, and a good pipe of bastard, you must take some empty butt or pipe; and draw thirty gallons of Malmsey, and as many of bastard; and beate them well together: and when you haue so done, take a quarter of a pound of Ginger and bruise it, and put it into your vessell; then fill it vp with malmsey and bastard: Or otherwise thus, if you haue a pleasant butt of malmsey, which is called Ralt-mow, you may draw out of it forty gallons, and if your bastard be very faint, then thirty gallons of it will serue to make it pleasant: then take foure gallons of new milke and beate it, and put it into it when it lacketh twelue gallons of full, and then make your flauer.

How to flauer Muskadine.

Take one ounce of Collianders, of Bay-salt, of Cloues, of each as much, one handfull of Sauory: let all these bee blended and bruised together, and sow them close in a bagge, and take halfe a pint of Damaske-water, and lay your flauer into it, and then put it into your butt, and if it fine, giue it a parill and fill it vp, and let it lie till it fine: or else thus, Take Coliander roots a peniworth, one pound of Aniseedes, one peniworth in Ginger;

Ginger: bruiſe them together and put them into a bagge as before, and make your bagge long and ſmall that it goe in and out at the bung-hole, and when you do put it in, faſten it with a thread at the bung: then take a pint of the ſtrongeſt Damaske water, and warme it luke-warme, then put into the But, and then ſtop it cloſe for two or three dayes at leaſt, and then if you pleaſe you may ſet it abroach.

To aparell Muskadine when it comes new into be fined in twenty foure houres.

Take ſeuen whites of new layd egges, two handfuls of Bay-ſalt, and beate them well together, and put therein a pint of Sacke or more, and beate them till they be as ſhort as ſnow; then ouer-draw the But ſeauen or eight gallons, and beate the wine, and ſtirre the Lees, and then put in the parill and beate it, and ſo fill it vp, and ſtop it cloſe, and draw it on the morrow.

To make white Baſtard.

Draw out of a pipe of Baſtard ten gallans, and put to it fiue gallans of new milke, and skim it as before, and all to beate it with a parill of eight whites of egges, and a handfull of Bay-ſalt, and a pint of conduit water, and it will be white and fine in the morning. But if you will make very fine Baſtard, take a White-wine Hogs-head, and put out the Lees, and waſh it cleane, and fill it halfe full and halfe a quarter, and put to it foure gallans of new milke, and beate it well with the Whites of ſixe Egges, and fill it vp with White-wine and Sacke, and it will be white and fine.

How to helpe Baſtard being eager.

Take two gallons of the beſt ſtoned honey, and two gallans of White-wine, and boyle them in a faire pan, skimme it cleane, and ſtraine it through a faire cloth that there be no moats in it: then put to it one ounce of Collianders, and one ounce of Aniſeeds, foure or fiue Orange pils dry and beaten to powder, let them lye three dayes: then draw your Baſtard into a cleane pipe, then

then put in your honey with the reſt, and beate it well: then let it lye a weeke and touch it not, after draw it at pleaſure.

To make Baſtard white, and to rid away Lagges.

If your Baſtard be fat and good, draw out forty gallons, then may you fill it vp with the lagges of any kind of White-wines or ſackes; then take fiue gallons of new milke, and firſt take away the Creame, then ſtraine it through a cleane cloth, and when your pipe is three quarters full, put in your milke: then beate it very well, and fill it ſo, that it may lacke fifteene gallons, then aparill it thus; take the Whites onely of ten egges, and beate them in a faire tray with Bay-ſalt and conduite water: then put it into the pipe and beate it well, and ſo fill it vp, and let it ſtand open all night: and if you will keepe it any while, you muſt on the morrow ſtop it cloſe, and to make the ſame drinke like Oſſey, giue it this flauer: Take a pound of Aniſeeds, two pence in Coliander, two pence in Ginger, two pence in Cloues, two pence in graines, two pence in long Pepper, and two pence in Licoras: bruiſe all theſe together: then make two bagges of Linnen cloth, long and ſmall, and put your ſpices into them, and put them into the pipe at the bung, making them faſt there with a thread that it may ſinke into the Wine, then ſtop it cloſe, and in two dayes you may broch it.

A remedy for Baſtard if it packe.

Take and draw him from his Lees if he haue any, and put the Wine into a Malmſey But to the Lees of Malmſey: then put to the Baſtard that is in the Malmſey But, nigh three gallons of the beſt Worte of a freſh tap, and then fill him vp with baſtard or malmſey, or cute if you will: then aparell it thus; Firſt, parell him, and beate him with a ſtaffe, and then take the whites of foure new layd egges, and beate them with a handfull of

of Salt till it be ſhort as moſſe, and then put a pint of running water therein, and ſo fill the pipe vp full, and lay a tile ſtone on the bung, and ſet it abroach within foure and twenty houres if you will.

If you haue a good But of Malmſey, and a butt or two of Sacke that will not be drunke: for the ſacke prepare ſome empty But or Pipe, and draw it more then halfe full of ſacke, then fill it vp with Malmſey, and when your butt is full within a little, put into it three gallons of Spaniſh cute, the beſt that you can get, then beate it well, then take your taſter and ſee that it bee deepe coloured: then fill it vp with ſacke, and giue it aparell, and beate it well, the aparell is thus: Take the yelkes of tenne egges, and beate them in a cleane baſon with a handfull of Bay-ſalt, and a quart of conduit water, and beate them together with a little peece of birch, and beate it till it be as ſhort as moſſe, then draw fiue or ſixe gallons out of your butt, then beate it againe, and then fill it vp, and the next day it will be ready to be drawne. This aparell will ſerue both for Muskadine, Baſtard, and for Sacke. To make Malmſey.

If you haue two principall butts of malmſey, you may make three good butts with your lagges of Claret and of Sacke, if you put two gallons of Red Wine in a butt, it will ſaue the more Cute: then put two or three gallons of Cute as you ſee cauſe; and if it be Spaniſh Cute, two gallons will goe further then fiue gallons of Candy Cute, but the Candy Cute is more naturall for the malmſey: alſo one butt of good malmſey, & a butt of ſacke that hath loſt his colour, will make two good buts of malmſey with the more Cute; and when you haue fild your butts within twelue gallons, then put in your Cute, and beate it halfe an houre and more: To ſhift Malmſey, and to rid away ill Wines.

then

then put in your parell and let it lye.

If Sacke want his colour.

Firſt, parell him as you did the Baſtard, and order him as ſhall be ſhewed you for the White-wine of Gaſcoyne with milke, and ſo ſet him abroach.

For Sacke that is tawny.

If your Sacke haue a ſtrong ley or taſte, take a good ſweete But faire waſhed, and draw your ſacke into it, and make vnto it a parell as you doe to the Baſtard, and beate it very well, and ſo ſtop vp your But: and if it be tawny, take three gallons of newe milke and ſtraine it cleane, and put it into your ſacke, then beate it very well, and ſtop it cloſe.

For Sacke that doth rape and is browne.

Take a faire empty But with the Lees in it, and draw your ſacke into the ſame from his Lees fine: then take a pound of Rice-flower as fine as you can get, and foure graines of Camphire, and put it into the ſacke: and if it will not fine, giue it a good parell, and beate it well: then ſtop it and let it lie.

To color ſack, or any White-wine.

If any of your ſackes or White-wines haue loſt their colour, take three gallans of new milke, and take away the Creame: then ouer-draw your wine fiue or ſixe gallons, then put in your milke and beate it; then lay it a foretarke all night, and in the morning lay it vp, and the next day if you will you may ſet it abroach.

If Alligant be growne hard.

Draw him out into freſh Lees, and take three or foure gallons of ſtone-hony clarified, and beeing coole, put it in and parell it with the yelkes of foure Egges, whites and all, and beate it well, and fill it vp, and ſtop it cloſe, and it will be pleaſant and quicke as long as it is in drawing.

For Alligant that is ſower.

Take three gallons of white Honey, and two gallons of Red wine, boyle them together in a faire pan, and ſkimme it cleane, and let it ſtand till it be fine and cold, then put it into your Pipe, yet nothing but the fineſt,

then

then beate it well, and fill it vp, and ſtop it cloſe, and if your Alligant be pleaſant and great, it will doe much good, for the one Pipe will rid away diuers.

There are two ſorts of Reniſh wines, that is to ſay, *Elſtertune* and *Barabant*: the *Eſtertune* are beſt, you ſhal know it by the Fat, for it is double bard and double pinned; the *Barabant* is nothing ſo good, and there is not ſo much good to be done with them as with the other. If the Wines be good and pleaſant, a man may rid away a Hogſhead or two of White wine, and this is the moſt vantage a man can haue by them: and if it be ſlender and hard, then take three or foure gallons of ſtone-honey and clarifie it cleane; then put into the honey foure or fiue gallons of the ſame wine, and then let it ſeeth a great while, & put into it two pence in Cloues bruiſed, let them ſeeth together, for it will take away the ſent of honey, and when it is ſodden take it off, and ſet it by till it be thorow cold; then take foure gallons of milke and order it as before, and then put all into your wine and all to beate it; and (if you can) role it, for that is the beſt way; then ſtop it cloſe and let it lie, and that will make it pleaſant. How to order Reniſh wine.

The Wines that be made in *Burdeaux* are called *Gaſcoyne* Wines, and you ſhall know them by their hazell hoopes, and the moſt be full gadge and found Wines. Of what countries Wines are by their names.

The Wines of the hie countryes, and which is called Hie-country wine, are made ſome thirty or forty miles beyond *Burdeaux*, and they come not down ſo ſoone as the other; for if they doe, they are all forfeited, and you ſhall know them euer by their hazell hoopes, and the length gage lackes.

Then haue you Wines that be called *Gallaway* both in Pipes and Hogſheads, and be long, and lackes

two Ceſternes in gadge and a halfe, and the Wines themſelues are high coloured. Then there are other Wines which is called white Wine of *Angulle*, very good Wine, and lackes little of gadge, and that is alſo in Pipes for the moſt part, and is quarter bound. Then there are *Rochell* Wines, which are alſo in Pipes long and ſlender: they are very ſmall hedge-wines, ſharpe in taſte, and of a pallad complexions. Your beſt Sacke are of *Seres* in *Spaine*, your ſmaller of *Galicia* and *Portugall*: your ſtrong Sackes are of the Iſlands of the *Canaries*, and of *Malligo*; and your Muskadine and Malmſeys are of many parts of *Italy*, *Greece*, and ſome ſpeciall Iſlands.

Notes of gadging of Wines, Oyles and Lyquors.

Euery Terſe is in depth the middle of the knot in the midſt.

The depth of euery Hogſhead is the fourth pricke aboue the knot.

The depth of euery Puncheon is the fourth pricke next to the Puncheon.

The depth of euery Sack-but is the foure prickes next to the Puncheon.

The depth of the halfe Hogſhead is at the loweſt notch, and accounted one.

The depth of the halfe Terſe is at the ſecond notch, and is accounted two.

The depth of the halfe Hogſhead and halfe pipe, is at the third notch, and accounted three.

The depth of the halfe Butt is at the fourth notch, and is accounted foure.

1. The full gage is marked thus.



The markes of Gadging.

2. The halfe Sesterne lacketh, thus



3. The whole Sesterne lacketh, thus



4. The Sesterne and halfe lag.



5. The two Sesternes, thus.



6. The two and a halfe Sesterns, thus



The Contents of all manner of Gascoyne wine, and others.

A But of Malmsey if he be full gadge, is one hundred and twenty six gallons

And so the tun is two hundred and fifty two gallons.

Euery Sesterne is three gallons.

If you sell for twelue pence a gallon, the tun is twelue pound, twelue shillings.

And Malmsey and Renish wine at ten pence the gallon, is the tun tenne pound.

Eight pence the gallon, is the tun eight pounds.

Sixe pence the gallon, is the tun sixe pounds.

Fiue pence the gallon, is the tun fiue pound.

Foure pence the gallon, is the tun foure pound.

Now for Gascoine wine there goeth foure hogsheads to a tun, and euery hogshead is sixty three gallons, the two hogsheads are one hundred twenty sixe gallons, and foure hogsheads are two hundred fifty two gallons; and if you sell for eight pence the gallon, you shall make of the tun eight pounds, and so foorth looke how many pence the gallons are, and so many pounds the tunne is.

Now for Bastard it is at the same rate, but it lacketh of gadge two Sesternes and a halfe, or three at a pipe, and then you must abate sixe gallons of the price, and so in all other wines.

To chuse Gascoyne wines.

See that in your choice of Gascoine wines you obserue; that your Clarret wines be faire coloured, and bright as a Rubie, not deepe as an Ametist; for though it may shew strength, yet it wants neatnesse: also let it be sweete as a Rose or a Violet, and in any case let it be short; for if it be long, then in no wise meddle with it.

For your white wines, see they be sweete and pleasant at the nose, very short, cleere and bright and quick in the taste.

Lastly

Laſtly for your Red wine, prouide that they be deepe coloured and pleaſant, long, and ſweete, and if in them, or Clarret wines be any default of colour, there are remedies enow to amend and repaire them.

If your Clarret wine be faint, and haue loſt his colour; then take a freſh hogſhead with his freſh lees which was very good wine, and draw your wine into the ſame, then ſtop it cloſe and tight, and lay it a foretake for two or three daies that the lees may run through it, then lay it vp till it be fine, and if the colour be not perfit, draw it into a red wine hogſhead, that is new drawne with the lees, and that will colour of himſelfe, and make him ſtrong; or take a pound of Tournſoll or two, and beate it with a gallon or two of wine, and let it lie a day or two, then put it into your hogſhead, draw your wine againe, and waſh your cloths, then lay it a foretake all night, and roule it on the morrow; then lay it vp, and it will haue a perfit colour.

To remedy Clarret wine that hath loſt his colour.

And if your Clarret wine haue loſt his colour, take a peny worth of Damſens, or els blacke Bulleſles, as you ſee cauſe, and ſtew them with ſome red wine of the deepeſt colour, and make thereof a pound or more of ſirrup, and put it into a cleane glaſſe, and after into the hogſhead of Clarret wine; and the ſame you may likewiſe doe vnto red wine if you pleaſe.

A remedy for Gaſcoyne wine that hath loſt his colour.

And if your white wine be faint, and haue loſt his colour, if the wine haue any ſtrength in it; take to a hogſhead ſo much as you intend to put in, out of the ſaid milke, and a handfull of Rice beaten very well, and a little ſalt, and lay him a foretake all night, and on the morning lay him vp againe, and ſet it abrach in any wiſe the next wine you ſpend, for it will not laſt long.

A remedy for white wine, that hath loſt his colour.

Take three gallons of new milke, and take away the

For white wine that hath loſt his colour.

Creame off it; then draw fiue or ſixe gallons of wine, and put your milke into the hogſhead, and beate it exceeding well, then fill it vp, but before you fill it vp, if you can, roule it, and if it be long and ſmall, take halfe a pound of Roche Allum finely beaten into pouder, and put into the veſſell, and let it lie.

A remedy for Clarret, or white wine that drinks foule.

Take and draw it into new lees of the one nature, and then take a dozen of new pippins, and pare them, & take away the chores, and then put them in, and if that will not ſerue, take a handfull of the Oake of Ieruſalem, and ſtampe it, then put it into your wine, and beate it exceeding well, and it will not onely take away the foulneſſe, but alſo make it haue a good ſent at the noſe.

For red wine that drinks faint.

If your Red wine drinke faint, then take a hogſhead that Allegant hath been in with the lees alſo, and draw your wine into it, and that will refreſh it well, and make the wine well coloured; or otherwiſe draw it cloſe to freſh lees, & that will recouer it againe, & put to it three or foure gallons of Allegant, and turne it on his lees.

For red wine that wants colour.

If your Red wine lacke colour, then take out foure gallons, and put in foure gallons of Allegant, and turne him on his lees, and the bung vp, and his colour will returne and be faire.

To make Tyre.

Take a good But of Malmſey, and ouerdraw it a quarter or more, and fill him vp with fat Baſtard, and with Cute a gallon and more, then parrell him as you did your Malmſey.

If Oſſey, complexion, or Capprock haue loſt their colour.

You ſhall in all points dreſſe him, as you did dreſſe your Sacke, or white wine in the like caſe, and parrell him, and then ſet him abroach: And thus much touching wines of all ſorts, and the true vſe and ordering of them, ſo farre forth as belongeth to the knowledge, and profit of our Engliſh Houſ-wife.

CHAP.

Chap. 5.

Of Wooll, Hempe, Flax and Cloth, and Dying of colours, of each ſeuerall ſubſtance, with all the knowledges belonging thereto.

OVr *Engliſh Houſwife* after her knowledge of preſeruing, and feeding her family, muſt learne alſo how out of her owne endeauours, ſhe ought to cloath them outwardly & inwardly for defence from the cold and comlineſſe to the perſon; and inwardly, for cleanlineſſe and neatneſſe of the skin, whereby it may be kept from the filth of ſweat, or vermine; the firſt conſiſting of woollen cloth, the latter of linnen.

To ſpeake then firſt of the making of woollen cloth, it is the office of the Husbandman at the ſheering of his ſheepe, to beſtow vpon the Houſ. wife ſuch a competent proportion of wooll, as ſhall be conuenient for the clothing of his family, which wooll as ſoone as ſhe hath receiued it, ſhe ſhall open, and with a paire of ſheeres (the fleece lying as it were whole before her) ſhe ſhall cut away all the courſe locks, pitch, brands, tarr'd locks, and other feltrings, and lay them by themſelues for courſe Couerlids, or the like: then the reſt ſo cleanſed ſhe ſhall breake into peeces, and toſe it euery locke by locke, that is, with her hands open, and ſo diuide the wooll, as not any part thereof may be feltred or cloſe together, but all open and looſe, then ſo much of the wooll as ſhee intends to ſpinne white, ſhee ſhall put by it ſelfe, and the reſt which ſhee intends to put into colours ſhee ſhall waigh vp, and diuide into ſeuerall quantities, accor-

Of making woollen cloth.

Of toſing wooll.

ding to the proportion of the web which she intends to make, and put euery one of them into particular bagges made of netting, with talies or little peeces of wood fixed vnto them, with priuy markes thereon both for the waight, the colour, and the knowledge of the same wooll when the first colour is altred: this done, she shall if she please send them vnto the Dyers, to be died after her owne fancy; yet for as much as I would not haue our *English House-wife* ignorant in any thing meete for her knowledge, I will shew her here before I proceede any further, how she shall dye her wooll her selfe into any colour meete for her vse.

The dying of Wooll.

To dye wooll blacke.

First then to dye wooll blacke, you shall take two pound of Gals, and bruise them, then take halfe so much of the best greene Coperas, and boyle them both together in two gallons of running water: then shall you put your wooll therein and boile it, so done, take it forth and dry it.

To dye wooll of haire color.

If you will dye your wooll of a bright haire colour: first boyle your wooll in Allum and water; then take it foorth, and when it is cold, take chamber-lye and chimney-soote, and mixing them together well, boyle your wooll againe therein, and stirre it exceeding well about; then take it forth, and lay it where it may conueniently dry.

To dye wooll red.

If you would dye your wooll into a perfect red colour, set on a pan full of water, when it is hot put in a pecke of Wheate branne, and let it boyle a little, then put it into a tub, and put twice as much cold water vnto it, and let it stand vntill it be a weeke old: hauing done so, then shall you put to ten pounds of wooll, a pound of Allum, then heate your liquor againe, and put in your Allum, and so soone as it is melted, put in your wooll, and

and let it boyle the ſpace of an houre : Then take it againe, and then ſet on more branne and water : Then take a pound of Madder, and put in your Madder when the liquor is hot : when the Madder is broken, put in the wooll and open it, and when it commeth to be very hot, then ſtirre it with a ſtaffe, and then take it out and waſh it with faire water ; then ſet on the panne againe with faire water, and then take a pound of Saradine bucke, and put it therein, and let it boyle the ſpace of an egge ſeething ; then put in the wooll, and ſtirre it three or foure times about, and open it well, after dry it.

To dye Wooll blew, take good ſtore of old chamber-lye, and ſet it on the fire, then take halfe a pound of blew Neale, Byſe or Indico, and beate it ſmall in a morter, and then put it into the Lye, and when it ſeethes put in your wooll. To dye wooll blew.

To dye Wooll of a puke colour, take Galles, and beate them very ſmall in a morter, put them into faire ſeething water, and boyle your Wooll or your Cloth therein, and boyle them the ſpace of halfe an howre : then take them vp, and put in your Copheras into the ſame liquor : then put in your wooll againe, and doing thus once or twice, it will bee ſufficient. To dye a Puke.

And if you will dye your Wooll of a Sinder colour, which is a very good colour, you ſhall put your redde wooll into your puke liquor ; and then it will faileleſſe be of a ſinder colour. To dye a ſinder colour.

If you will dye your wooll either greene or yellow, then boyle your Woodward in faire water, then put in your Wooll or cloth, and the Wooll which you To dye greene or yellow.

you put in white, will be yellow, and that wooll which you put in blew will be greene, and all this with one liquor: prouided that each be first boyled in Allom.

Handling of wooll after dying.

When you haue thus died your wooll into those seuerall colours meete for your purpose, and haue also dried it well; then you shall take it foorth, and toase it ouer againe as you did before: for the first toasing was to make it receiue the colour or dye: this second is to receiue the oyle, and make it fit for spinning; which assoone as you haue done, you shall mixe your colours together, wherein you are to note that the best medly, is

The mixing of colours.

that which is compounded of two colours onely, as a light colour, and a darke: for to haue more is but confusion, and breeds no pleasure, but distraction to the sight: therefore for the proportion of your mixtures, you shall euer take two parts of the darker colour, and but a third part of the light. As for example, your Web containes twelue pound and the colours are red and greene: you shall then take eight pound of the greene wooll, and but foure pound of the red, and so of any other colours where there is difference in brightnesse.

Mixing of three colours.

But if it be so that you will needs haue your cloth of three colours, as of two darke and one light, or two light and one darke: As thus, you will haue Crimson, Yellow, and Puke; you shall take of the Crimson and yellow of each two pound, and of the puke eight pound: for this is two light colours to one darke; but if you will take a puke, a greene and an orenge tawny which is two darke, and one light; then you shall take of the puke and greene, and the orenge tawny of each a like quantity: that is to say, of either foure pounds, when you haue equally diuided your portions, then you shall spread vpon the ground a sheete, and vpon the same first lay a thin

thin layre or bed of your darker colour, all of one euen thickneſſe: then vpon the ſame layre, lay another much thinner of the brighter quantity, being ſo neere as you gueſſe it, hardly halfe ſo much as the darker: then couer it ouer with another layre of the ſad colour or colours againe, then vpon it another of the bright againe: And thus lay layre vpon layre till all your wooll be ſpread: then beginning at one end to role vp round and hard together the whole bed of wooll, and then cauſing one to kneele hard vpon the roule, that it may not ſtirre nor open, with your hands toaſe, and pull out all the wooll in ſmall peeces: And then taking a paire of Stocke-cards ſharpe and large, and bound faſt to a forme, or ſuch like thing, and on the the ſame Combe, and Card ouer all the wooll, till you ſee it perfectly and vndiſtinctly mixed together, and that indeed it is become one intire colour of diuerſe without ſpots, or vndeuided lockes or knots; in which doing you ſhall be very carefull, and heedfull with your eye: and if you finde any hard knot, or other felter in the wooll, which will not open, though it be neuer ſo ſmall, yet you ſhall picke it out and open it, or elſe being any other fault caſt it away: for it is the greateſt art in *Houſe-wifery* to mixe theſe wools aright, and to make the cloth without blemiſh.

Of the oyling of Woolle.

Your wooll being thus mixed perfectly together, you ſhall then oyle it, or as the plaine *Houſe-wife* termes it, greaſe it: In this manner being laid in a round flat bed, you ſhall take of the beſt Rape oyle, or for want thereof either well rayd red gooſe greaſe, or ſwines greaſe, and hauing melted it with your hand ſprinkle it all ouer your wooll, and worke it very well into the ſame: then turne your wooll about, and doe as much on the other

ſide,

ſide, till you haue oyled all the wooll ouer, and that there is not a locke which is not moyſtened with the ſame.

The quantity of oyle.

Now for as much as if you ſhall put too much oyle vpon the Wooll, you may thereby do great hurt to the web, and make that the thread will not draw, but fall into many peeces; you ſhall therefore bee ſure at the firſt to giue it little enough: and taking ſome thereof, proue it vpon the wheele: And if you ſee it drawes dry, and breaketh, then you may put more oyle vnto it; but if draw well, then to keepe it there without any alteration: but becauſe you ſhall be a little more certaine in the truth of your proportions, you ſhall know, that three pound of greaſe or oyle, will ſufficiently annoint or greaſe ten pounds of wooll: and ſo according to that proportion you may oyle what quantity you will.

Of the tumming of wooll.

After your wooll is oyld and annointed thus, you ſhall then tumme it, which is, you ſhall pull it foorth as you did before, when you mixe it, and caſde it ouer againe vpon your Stock-cardes: and then thoſe cardings which you ſtrike off, are called tummings, which you ſhall lay by, till it come to ſpinning. There be ſome *Houſe-wiues* which oyle it as they mixe it, and ſprinckle euery layre as they lay it, and worke the oyle well into it: and then rouling vp as before ſayd, pull it out, and tumme it; ſo that then it goeth but once ouer the Stock-cards, which is not amiſſe: yet the other is more certaine, though ſomewhat painefull.

Of ſpinning Wooll.

After your Wooll is thus mixed, oyled and tummed, you ſhall then ſpinne it vpon great wooll-wheeles, according to the order of good *Houſe-wifery*: the action whereof muſt be got by practiſe, and not relation; only this you ſhall be carefull, to draw your thread according

ding to the nature, and goodnes of your wooll, not according to your particular deſire: for if you draw a fine thread from a wooll which is of a courſe ſtaple, it will want ſubſtance when it comes to the Walke Mill, and either there beate in peeces, or not being able to bed, and couer the threads well, be a cloth of a very ſhort laſting. So likewiſe if you draw a courſe thread from a wooll of a fine ſtaple, it will then ſo much ouer thicke, that you muſt either take away a great part of the ſubſtance of your wooll in flockes; or els let the cloth weare courſe, and high, to the diſgrace of the good Houſe-wifery, and loſſe of much cloth, which els might haue beene ſaued.

Now for the diuerſities of ſpinning, although our ordinary *Engliſh Houſe-wiues* make none at all, but ſpin euery thread alike, yet the better experienſt make two manner of ſpinnings, and two ſorts of thread; the one they call warpe, the other weft, or elſe wooffe; the warpe is ſpunne cloſe, round and hard twiſted, being ſtrong and well ſmoothed, becauſe it runs thorough the ſleies, and alſo indureth the fretting and beating of the beame, the weft is ſpunne open, looſe, hollow, and but halfe twiſted; neither ſmoothed with the hand, nor made of any great ſtrength, becauſe it but only croſſeth the warpe, without any violent ſtraining, and by reaſon of the ſoftneſſe thereof beddeth cloſer, and coureth the warpe ſo well, that a very little beating in the Mill bringeth it to perfect cloth: and though ſome hold it leſſe ſubſtantiall then the web, which is all of twiſted yarne, yet experience findes they are deceiued, and that this open weft keepes the Cloth longer from fretting and wearing. The diuerſities in ſpinning.

After the ſpinning of your wooll, ſome Houſ-wifes

vſe

Winding of Woollen yarne.

vſe to wind it from the broch into round clewes for more eaſe in the warping, but it is a labour may very well be ſaued, and you may as well warpe it from the broch as from the clew, as long as you know the certaine waight, for by that onely you are to be directed in all manner of cloth making.

Of warping Cloth.

Now as touching the warping of cloth, which is both the skill and action of the Weauer, yet muſt not our *Engliſh Houſe-wife* be ignorant therein, but though the doing of the thing be not proper vnto her, yet what is done muſt not be beyond her knowledge, both to bridle the falſhood of vnconſcionable workemen, and for her owne ſatisfaction, when ſhee is rid of the doubt of anothers euill doing. It is neceſſary then that ſhee firſt caſt by the waight of her wooll, to know how many yards of cloth the web will ariſe: for if the wooll be of a reſonable good ſtaple, and well ſpunne, it will run yard and pound, but if it be courſe, it will not runne ſo much.

Now in your warping alſo, you muſt looke how many pounds you lay in your warpe, and ſo many you muſt neceſſarily preſerue for your weft; for Houſ-wifes ſay the beſt cloth is made of euen and euen; for to driue it to greater aduantage is hurtfull to the cloth; there be other obſeruations in the warping of cloth; as to number your portuſſes, and how many goes to a yard: to looke to the cloſenеſſe, and filling of the ſleie, and and ſuch like, which ſometimes hold, and ſometimes faile, according to the art of the workeman; and therefore I will not ſtand much vpon them; but referre the Houſe-wife to the inſtruction of her owne experience.

Now after your cloth is thus warped, and deliuered vp

vp into the hands of the Weauer; the Houſ-wife hath finiſht her labour: for in the weauing, walking, and dreſſing thereof ſhee can challenge no property more, then to entreate them ſeuerally to diſcharge their duties with a good conſcience; that is ſay, that the Weauer weaue cloſe, ſtrong, and true, that the Walker or Fuller, mill it carefully, and looke well to his ſcowring-earth, for feare of beating holes into the cloth; and that the Clothworker, or Sheereman burle, and dreſſe it ſufficiently, neither cutting the wooll too vnreaſonable high, whereby the cloth may weare rough, nor too low, leaſt it appeare thread-bare ere it come out of the hands of the Taylor. Theſe thinges forewarnd and performed, the cloth is then to be vſed at your pleaſure. Of weauing cloth, walking and dreſſing it

The next tuing to this, which our *Engliſh Horſe-wife* muſt be skilfull is in the making of all ſorts of linnen-cloth, whether it be of hempe or flaxe, for from thoſe two onely this is the moſt principall cloth deriued, and made both in this, and in other nations. Of linnen cloth.

And firſt touching the ſoile fitteſt to ſow hempe vpon, it muſt be a rich mingle earth of clay and ſand, or clay and grauell well tempered: and of theſe the beſt ſerueth beſt for the purpoſe, for the ſimple clay, or the ſimple ſand are nothing ſo good; for the firſt is too tough, too rich, and too heauy, bringeth forth all Bunne and no rinde, the other is too barren, too hot, and too light, and bringeth forth ſuch ſl nder withered increaſe, that it is nothing neere worth the labour: briefly then the beſt earth is the beſt mixt ground which Husband-men call the red hazell ground, being well ordered and manured: and of this earth a principall place to ſow hempe on, is in old ſtackeyards, or other places The ground beſt to ſow hempe on.

places kept in the winter time for the laire of ſhcepe or cattle: when your ground is either ſcarſe, or formerly not imployed to that purpoſe: but if it be where the ground is plenty, and onely vſed thereunto, as in *Holland*, in *Lincolne-ſheire*, the Iſle of *Axham*, and ſuch like places, then the cuſtome of the Country will make you except enough therein: there be ſome that will preſerue the endes of their corne lands, which but vpon graſſe for to ſow hempe or flaxe thereon, and for that purpoſe will manure it well with ſheepe: for whereas corne which butteth on graſſe hads, where cattle are teathered is commonly deſtroyed, and no profit iſſuing from a good part thereof; by this meanes, that which is ſowen will be more ſafe and plentifull, and that which was deſtroyed, will beare a commodity of better value.

The tillage of the ground.

Now for the tillage or ordering of the ground where you ſow Hempe or flaxe, it would in all poynts be like vnto that where you ſow Barley, or at the leaſt as often broke vp, as you do when you ſow fallow wheat, which is thrice at leaſt, except it be ſome very mellow, and ripe mould, as ſtack-yards, and vſuall hempe-lands be, and then twice breaking vp is ſufficient: that is to ſay, about the latter end of *February*, and the latter ende of *Aprill*, at which time you ſhall ſow it: and herein is to noted, that you muſt ſow it reaſonable thicke with good ſound and perfect ſeed, of which the ſmootheſt, roundeſt, and brighteſt with leaſt duſt in is beſt: you muſt not lay it too deepe in the earth, but you muſt couer it cloſe, light, and with ſo fine a mould as you can poſſible breake with your Harrowes, clotting-beetles, or ſleighting: then till you ſee it appeare aboue the earth, you muſt haue it exceedingly carefully tended, eſpecially an houre

Of ſowing of hempe or flax.

houre or two before Sunne riſe, and as much before it ſet, from birds and other vermine, which will otherwiſe picke the ſeed out of the earth, and ſo deceiue you of your profit.

Of weeding of Hempe and flax.

Now for the weeding of hempe, you may ſaue the labour, becauſe it is naturally of it ſelfe ſwift of growth, rough, and venemous to any thing that growes vnder it, and will ſooner of its owne accord deſtroy thoſe vnwholeſome weeds then by your labour: But for your Flaxe or line which is a great deale more tender, and of harder encreaſe, you ſhall as occaſion ſerueth weede it, and trimme it, eſpecially if the weeds ouergrow it, but not otherwiſe: for if it once get aboue the weeds, then it will ſaue it ſelfe.

The pulling of hempe or flax.

Touching the pulling of Hempe or Flaxe, which is the manner of gathering of the ſame: you ſhall vnderſtand that it muſt be pulled vp by the rootes, and not cut as Corne is, either with ſithe or hooke: and the beſt time for the pulling of the ſame is, when you ſee the leaues fall downeward, or turne yellow at the tops, for that it is full ripe, and this for the moſt part will be in *July*, and about *Mary Maudlins* day. I ſpeake now touching the pulling of hempe for cloth: but if you intend to ſaue any for ſeed, then you ſhal ſaue the principal bunnes, and let them ſtand till it be the latter end of *Auguſt*, or ſometimes till mid *September* following: and then ſeeing the ſeede turned browne and hard, you may gather it, for if it ſtand longer, it will ſhed ſuddenly: as for flaxe, which ripeneth a little after the hempe, you ſhall pull it as ſoone as you ſee the ſeed turne browne, and bend the head to the earthward, for it will afterward ripen of it ſelfe as the bunne drieth.

Now for the ripening, and ſeaſoning of Hempe or

The ripening of hempe and flaxe.

Flaxe, you ſhall ſo ſoone as you haue pulled it, lay it all along flat, and thinne vpon the ground, for a night and a day at the moſt, and no more; and then as *Houſe-wiues* call it, tye it vp in baites, and reare them vpright till you can conueniently carry it to the water, which would be done as ſpeedily as may be. Now there be ſome which ripen their Hempe and Flaxe vpon the ground where it grew, by letting it lye thereon to receiue dewes and raine, and the moyſtneſſe of the earth, till it be ripe: but this is a vile and naughty way of ripening, it making the hempe or flaxe blacke, rough, and often rotten: therefore I would wiſh none to vſe it, but ſuch as neceſſity compelleth thereunto, and then to be carefull to the often turning thereof, for it is the ground onely which rots it.

The watering of hempe or flaxe.

Now for the watring of the Hempe or Flaxe, the beſt water is the running ſtreame, and the worſt the ſtanding pit, yet becauſe Hempe is a poyſonous thing, and infecteth the water, and deſtroyeth all kind of fiſh, it is more fit to employ ſuch pits and ditches as are leaſt ſubiect to annoyance, except you liue neere ſome great broad and ſwift ſtreame, and then in the ſhallow parts thereof, you may water without danger: touching the manner of the watering thereof, you ſhall according to the quantity, knocke foure or ſixe ſtrong ſtakes into the bottome of the water, and ſet them ſquare-wiſe, then lay your round baits or bundles of Hempe downe vnder the water, the thicke end of one bundle one way, and the thicke ends of another bundle another way; and ſo lay baite vpon baite, till you haue laid in all, and that the water couereth them all ouer; then you ſhall take ouer-lyers of wood, and binding them ouerthwart to the ſtakes, keepe the Hempe downe

downe cloſe, and eſpecially at the foure corners; then take great ſtones, grauell, and other heauy rubbiſh, and lay it betweene, and ouer the ouer-lyers, and ſo couer the Hempe cloſe, that it may by no meanes ſtirre, and ſo let it continue in the water foure daies and nights, if it be in a running water, but if it be in a ſtanding water, then longer, and then take out one of the vppermoſt baites and waſh it; and if in the waſhing you ſee the leafe come off, then you may be aſſured the Hempe is watred enough: as for Flaxe, leſſe time will ſerue it, and it will ſhead the leafe in three nights. The time it ſhall lie in the water.

When your Hempe or Flaxe is thus watered enough, you ſhall take off the grauell, ſtones, ouer-lyers of wood, and vnlooſing it from the ſtakes, take and waſh out euery baite or bundle ſeuerall by it ſelfe, and rub it exceeding cleane, leauing not a leafe vpon it, nor any filth within it; then ſet it vpon the dry earth vpright, that the water may drop from it, which done, load it vp, and carry it home, and in ſome open Cloſe or piece of ground reare it vpright either againſt hedges, pales, walls, backſides of houſes, or ſuch like, where it may haue the full ſtrength, or reflection of the Sunne, and being throughly dried, then houſe it; yet there be ſome *Houſe wiues* which aſſoone as their Hempe comes from the water, will not reare it vpright, but lay it vpon the ground flat and thinne for the ſpace of a fortnight, turning it at the end of euery two daies; firſt on the one ſide, then on the other, and then after reare it vpright, dry it, and ſo houſe it, and this *Houſe-wifery* is good and orderly. Of waſhing out of Hempe or Flax.

Now although I haue hitherto ioyned Hempe and Flaxe together, yet you ſhall vnderſtand that there are ſome particular differences betweene them; for whereas your Hempe may, within a night or two after the pul- Speciall ordering of Flaxe,

ling be carried to the water, your flaxe may not, but muſt be reared vp, and dried and withered a weeke or more to ripen the ſeede, which done, you muſt take ripple combes, and ripple your flaxe ouer, which is the beating, or breaking off from the ſtalkes the round belles or bobs, which containe the ſeede which you muſt preſerue in ſome dry veſſell or place, till the ſpring of the yeare, and then beate it, or threſh it for your vſe, and when your flaxe or line is ripled, then you muſt ſend it to the water as aforeſayd.

The braking for hempe flax.

After your hempe or Flaxe hath bene watered, dried, and houſed, you may then at your pleaſure breake it, which is in a brake of wood (whoſe proportion is ſo ordinary, that euery one almoſt knowes them) breake and beate out the dry bunne, or kexe of the Hempe or Flaxe from the rinde which couers it, and when you brake either, you ſhall doe it, as neere as you can, on a faire dry Sun-ſhine day, obſeruing to ſet foorth your hempe and flaxe, and ſpread it thinne before the Sunne, that it may be as dry as tinder before it come to the brake; for if either in the lying cloſe together it ſhall giue againe or ſweate, or through the moyſtneſſe of the ayre, or place where it lies receiues any dampiſhneſſe, you muſt neceſſarily ſee it dried ſufficiently againe, or elſe it will neuer brake well, nor the bunne breake and part from the rinde in order as it ſhould: therefore if the weather bee not ſeaſonable, and your need much to vſe your hempe or flaxe, you ſhall then ſpread it vpon your kilne, and making a ſoft fire vnder it, dry it vpon the ſame, and then brake it: yet for as much as this is oft times dangerous, and much hurt hath beene receiued thereby through caſualty of fire, I would wiſh you to ſticke foure ſtakes in

The drying of Hempe or Flaxe.

in the earth at leaſt fiue foote aboue ground, and laying ouer them ſmall our layers of wood, and open ſleakes or hurdles vpon the ſame, ſpread your Hempe, and alſo reare ſome round about it all, but at one open ſide; then with ſtraw, ſmall ſhauings, or other light dry wood make a ſoft fire vnder the ſame, and ſo dry it, and brake it, and this without all danger or miſtruſt of euill; and as you brake it, you ſhall open and looke into it, euer beginning to brake the roote ends firſt; and when you ſee the bun is ſufficiently cruſht, fallen away, or at the moſt hangeth but in very ſmall ſhiuers within the Hempe or Flaxe, then you ſhall ſay it is brak't enough, and then tearming that which you called a baite or bundle before, now a ſtrike, you ſhall lay them together and ſo houſe them, keeping in your memorie either by ſcore or writing, how many ſtrikes of Hempe, and how many ſtrikes of flaxe you brake vp euery day. When it is brak't enough.

Now that your Hempe or Flaxe may brake ſo much the better, you muſt haue for each ſeuerall ſort two ſeuerall brakes, which is an open and wide toothed, or nickt brake, and a cloſe and ſtraight toothed brake: the firſt being to cruſh the bun, and the latter to beate it forth. Now for Flaxe you muſt take firſt that which is the ſtraighteſt for the Hempe, and then after one of purpoſe, much ſtraighter and ſharper for the bunne of it being more ſmall, tough and thinne, muſt neceſſarily be broken into much leſſe peeces. Diuerſity of brakes.

After your Hempe and Flaxe is brak't, you ſhall then ſwingle it, which is vpon a ſwingle tree blocke made of an halfe inch boord about foure foote aboue ground, and ſet vpon a ſtrong foote or ſtocke, that will not eaſily moue and ſtirre, as you may ſee in any *Houſe-wiues* Of ſwinging hempe and flaxe.

houſe whatſoeuer better then my words can expreſſe: and with a peece of wood called the ſwingle tree dagger, and made in the ſhape and proportion of an olde dagger with a reaſonable blunt edge; you ſhall beate out all the looſe buns and ſhiuers that hang in the hemp or flaxe, opening and turning it from one ende to the other, till you haue no bunne or ſhiuer to be perceiued therein, and then ſtrike a twiſt, and fould in the midſt, which is euer the thickeſt part of the ſtrike, lay them by till you haue ſwingled all; the generall profit whereof, is not onely the beating out of the hard bunne, but alſo an opening, and ſoftning of the teare, whereby it is prepared and made ready for the Market.

Vſe of ſwingle-tree ſtrikt hurds.

Now after you haue ſwingled your Hempe and Flax ouer once, you ſhall take and ſhake vp the refuſe ſtuffe, which you beate from the ſame ſeuerally, and not onely it, but the tops and knots, and halfe brack't buns which fall from the brake alſo, and drying them againe cauſe them to be very well threſht with flayles, and then mixing them with the refuſe which fell from the ſwingle tree, dreſſe them all well with threſhing and ſhaking, till the bunnes be cleane driuen out of them; and then lay them in ſome ſafe drye place till occaſion of vſe: theſe are called ſwingle tree hurds, and that which comes from the hempe will make window cloth, and ſuch like courſe ſtuffe, and that which comes from the flaxe, being a little towed againe in a paire of woollcards, will make a courſe harding.

The ſecond ſwingling.

But to proceed forward in the making of cloth, after your hempe or flaxe hath beene ſwingled once ouer, which is ſufficient for the market, or for ordinary ſale, you ſhall then for cloth ſwingle it ouer the ſecond time, and as the firſt did beate away the bun, and ſoften

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the rind, ſo this ſhall breake and diuide, and prepare it fit for the heckle; and hurds which are this ſecond time beaten off, you ſhall alſo ſaue: for that of the hempe (being toaſed in wooll cards) will make a good hempen harden) and that commeth from the flaxe (vſed in that manner) a flaxe harden better then the former.

Of beating hempe.

After the ſecond ſwingling of your Hempe, and that the hurds thereof haue bene layd by, you ſhall take the ſtrikes, and diuiding them into dozens, or halfe dozens, make them vp into great thicke roles, and then as it were broaching them, or ſpitting them vpon long ſtickes, ſet them in the corner of ſome chemney, where they may receiue the heate of the fire, and there let them abide, till they be dried exceedingly, then take them, and laying them in a round trough made for the purpoſe, ſo many as may conueniently lye therein, and there with beetles beate them exceedingly, till they handle both without and within as ſoft and plyant as may be, without any hardneſſe or roughneſſe to be felt or perceiued; then take them from the trough, and open the roler, and diuide the ſtrikes ſeuerally as at the firſt, and if any be inſufficiently beaten, role them vp, and beate them ouer as before.

Of heckling hempe.

When your Hempe hath bene twice ſwingled, dried, and beaten, you ſhall then bring it to the heckle, which inſtrument needeth no demonſtration, becauſe it is hardly vnknowne to any woman whatſoeuer: and the firſt heckle ſhall be courſe, open and wide toothed, becauſe it is the firſt breaker or diuider of the ſame, and the layer of the ſtrikes euen and ſtraight: and the hurds which come of this heckling you ſhall mixe with thoſe of the latter ſwingling, and it will make the cloth much better; then you ſhall heckle it the ſecond time through

a good ſtraight heckle made purpoſely for hempe, and be ſure to breake it very well and ſufficiently thereupon, and ſaue both the hurds by themſelues, and the ſtrikes by themſelues in ſeuerall places.

Now there bee ſome very pincipall good *Houſe-wiues*, which vſe onely but to heckle their hempe once ouer, affirming, that if it be ſufficiently dried and beaten, that once going ouer through a ſtraight heckle will ſerue without more loſſe of labour, hauing bene twice ſwingled before.

Dreſſing of Hempe more fine.

Now if you intend to haue an excellent peece of Hempen cloth, which ſhall equall a peece of very pure Linnen, then after you haue beaten it, as beforeſayd, and hecked it once ouer, you ſhall then roule it vp againe, dry it as before, and beate it againe as much as at the firſt; then heckle it through a fine flaxen heckle, and the towe which falles from the heckle, will make a principall hemping, but the teare it ſelfe a cloth as pure, as fine *Houſe-wifes* Linnen, the indurance and laſting whereof, is rare and wonderfull: thus you ſee the vttermoſt art in dreſſing of hempe for each ſeuerall purpoſe in cloth making till it come to the ſpinning.

Of heckling Flaxe.

Flaxe after it hath bene twice ſwingled needeth neither more drying nor beating as hempe doth, but may be brought to the heckle in the ſame manner as you did hempe; onely the heckle muſt be much finer and ſtraiter, and as you did before the firſt heckle being much courſer then the latter, holding the ſtrike ſtiffe in your hand, breake it very well vpon that heckell: then the hurdes which comes thereof, you ſhall ſaue to make fine hurden cloth of, and the ſtrike it ſelfe you ſhall paſſe through a finer heckle; and the hurds which come from thence, you ſhall ſaue to make fine midlen

cloth

cloth of, and the teare it ſelfe for the beſt linnen.

To dreſſe Flaxe for the fineſt vſe that may be, as to make faire Holland cloth of great price, or thread for the moſt curious purpoſe, a ſecret hitherto almoſt concealed from the beſt *Houſe-wifes* with vs; you ſhall takee your Flaxe after it hath beene handled, as is before ſhewed, and laying three ſtrikes together, plat them in a plat of three ſo hard and cloſe together as it is poſſible, ioyning one to the end of another, till you haue platted ſo much as you thinke conuenient, and then begin another plat, and thus platte as many ſeuerall plats as you thinke will make a roule, like vnto one of your Hempe roules before ſpoke of, and then wreathing them hard together, make vp the roule; and ſo many roules more or leſſe, according to the purpoſe you dreſſe them for: this done, put the roules into a hempe-trough, and beate them ſoundly, rather more then leſſe then the hempe: and then open and vnplat it and diuide euery ſtrike from other very carefully; then heckle it through a fine heckle then any formerly vſed: for of heckles there be eſter three ſorts, and this muſt be the fineſt: and in this heckling you muſt be exceeding carefull to doe it gently, lightly, and with good deliberation, leaſt what you heckle from it ſhould runne to knots, or other hardnes, as it is apt to doe: but being done artificially as it ought, you ſhall ſee it looke, and fee eit handle like fine ſoft cotton, or Ierſie wooll; and this which thus looketh and feeleth, and falleth from the heckle, will notwithſtanding make a pure linnen, and run at leaſt two yards and a halfe in the pound; but the teare it ſelfe will make a perfect ſtrong, and moſt fine holland, running at leaſt fiue yards in the pound.

The dreſſing of flaxe to the fineſt vſe.

After your teare is thus dreſt, you ſhall ſpinne it either vpon

vpon wheele or rock, but the wheele is the ſwifter way, and the rocke maketh the finer thread; you ſhall draw your thread according to the nature of the teare, and as long as it is euen, it cannot be too ſmall, but if it be vneuen it will neuer make a durable cloth. Now for as much as euery Houſe-wife is not able to ſpinne her owne teare in her owne houſe, you ſhall make choyce of the beſt Spinners you can heareof, and to them put foorth your teare to ſpinne, weighing it before it goe, and waighing it after it is ſpun and dry, allowing waight for waight, as an ounce and a halfe for waſt at the moſt: as for the priſes for ſpinning, they are according to the natures of the countrie, the fineneſſe of the teare, and the deareneſſe of prouiſions: ſome ſpinning by the pound, ſome by the lay, and ſome by day, as the bargain ſhall be made.

Of the ſpinning of hempe.

After your yarne is ſpunne vpon ſpindles, ſpooles, or ſuch like; you ſhall then reele it vpon reeles, of which the reeles which are hardly two foot in length, and haue but onely two contrary croſſe barres are the beſt, the moſt eaſie and leaſt to be troubled with rauelling; and in the weauing of your fine yarne to keepe it the better from rauelling, you ſhall as you reele it, with a Ley-band of a bigge twiſt, diuide the ſlipping or skeane into diuers Leyes, allowing to euery Ley 80. threads, and 20. Laies to euery ſlipping, the yarne being very fine, otherwiſe leſſe of both kinds: but if you ſpin by the Ley, as at a pound a Ley or ſo, then the ancient cuſtome hath beene to allow to the reele which was 8. yards all aboue 160. threads to euery Ley, and 25 Leyes, and ſometimes 30 Leyes to a ſlipping, which will ordinarily amount to a pound or there abouts; and ſo by that you may proportion foorth the price for any manner of ſpinning

Of reeling of yarne.

ſpinnig whatſoeuer: for if the beſt thus, then the ſecond ſo much bated; and ſo accordingly the worſt.

After thus yor yarne is ſpunne and reeld, being in the ſlipping you ſhall ſcowre it: Therefore firſt to fetch out the ſpotts, you ſhall lay it in luke warme water, and let it lie ſo three or foure dayes, each day ſhifting it once, and wringing it out, and laying it in another water of the ſame nature; then carry it to a well or brooke, and there rinſe it, till you ſee that nothing commeth from it, but pure cleane water; for whilſt there is any filth within it, there will neuer be white cloth; which done take a bucking tub, and couer the bottome thereof with very fine Aſhen-aſhes: then opening your ſlippings, and ſpreading them; lay them on thoſe aſhes; then couer thoſe ſlippings with aſhes againe, then lay in more ſlippings, and couer them with aſhes as before, and thus lay one vpon another, till all your yarne be laid in; then couer the vppermoſt yarne with a bucking cloth, and lay therein a peeke or two (accordi ng to the bigneſſe of the tub) of aſhes more: then poure into all through the vppermoſt cloth ſo much warme water, till the tub can receiue no more; and ſo let it ſtand all night: the next morning, you ſhall ſet a kettle of cleane water on the fire; and when it is warme, you ſhall pull out the ſpigget of the bucking tubbe, and let the water therein runne into another cleane veſſell, and as the bucking tubbe waſteth, ſo you ſhall fill it vp againe with the warme water on the fire, and as the water on the fire waſteth, ſo you ſhall fill it vp againe with the lie which commeth from the bucking tubbe, euer obſeruinge to make the lie hotter and hotter till it ſeeth; and then when it ſo ſeetheth, you ſhall as before apply it with boyling lie, at leaſt foure houres together; which is cal-

Of the ſcowring of yarne.

Bucking of yarne.

led

led, the driuing of a Buck of yarne: All which being done you ſhall take off the Buckling-cloth, and then putting the yarne with the lie aſhes into large tubbes or boales, with your hands as hot as you can ſuffer it to poſſe, and labour the yarne, aſhes, and lie a pretty while together; then carry it to a well, riuer, or other cleane ſcouring water, and there rinſe it as cleane as may be from the aſhes, then take it, and hang it vp vpon poales abroad in the ayre all day, and at night take the ſlippings downe, and lay them in water all night, then the next day hang them vp againe, and if any part of them drie, then caſt water vpon them, obſeruing euer to turne that ſide outmoſt which whiteth ſloweſt, and thus doe at leaſt ſeuen daies together, then put all the yarne againe into a bucking tubbe without aſhes, and couer it as before with a bucking cloth, and lay thereupon good ſtore of freſh aſhes, and driue that buck as you did before, with very ſtrong ſeething lies, the ſpace of halfe a day or more, then take it foorth, poſſe it, rinſe it, and hang it vp as you did before on the daies, and laying it in water on the nights another weeke, and then waſh it ouer in faire water, and ſo dry it vp: other waies there are of ſcouring and whiting of yarne; as ſteeping it in branne and warme water, and then boyling it with *Oʒier* ſticks, wheat-ſtraw water and aſhes, and then poſſing, rinſing, and bleaching it vpon hedges, or buſhes; but it is a foule and vncertaine waie, and I would not wiſh any good *Houſe-wife* to vſe it.

Whitening of yarne.

After your yarne is ſcoured and whited, you ſhall then winde it vp into round balls of a reaſonable bigneſſe, rather without bottomes then with any at all, becauſe it may deceiue you in the waight, for according

Of winding yarne.

ding

ding to the pounds will arise your yards and lengths of cloth.

After your yarne is wound and waighed, you shall carry it to the Weauers, and warpe it as was before shewed for woollen cloth, knowing this, that if your Weauer be honest and skilfull he will make you good and perfect cloth of euen and euen, that is iust the same waight in weft that then was in warp; as for the action of weauing it selfe, it is the worke-mans occupation, and therefore to him I referre it. Of warping and weauing.

After your cloth is wouen, and the web or webs come home, you shall first lay it to steepe in all points as you did your yarne, to fetch out the soyling and other filth which is gathered from the Weauer; then rinse it also as you did your yarne, then bucke it also in lie and ashes as before said, and rinse it, and then hauing loops fixt to the seluedge of the cloth spread it vpon the grasse, and stake it downe at the vttermost length and breadth, and as fast as it dries water it againe, but take heed you wet it not too much, for feare you mildew or rot it, neither cast water vpon it till you see it in manner drie, and be sure weekely to turne it first on one side, and then on the other, and at the end of the first weeke you shall bucke it as before in Lie and Ashes againe then rinse it, spread it, and water it as before; then if you see it whites apace, you need not to giue it any more bucks with the ashes and the cloth mixt together: but then a couple of cleane buckes as was before shewed in the yarne) the next fortnight following; and then being whitened enough, dry vp the cloth, and vse it as occasion shall require; the best season for the same whitening being in *April* and *May*. Now the course and worst houl-wifes scoure and white their cloath with water The scowring and whitening of cloth.

and

and branne, and bucke it with lie and greene hemlocks: but as before I ſaid, it is not good, neither would I haue it put in practiſe. And thus much for Wooll, Hempe, Flaxe, and Cloth of each ſeuerall ſubſtance.

Chap. 6.

Of Dairies, Butter, Cheeſe, and the neceſſary things belonging to that Office.

HEre followeth now in this place after theſe knowledges already rehearſed, the ordering and gouernment of Dairies, with the profits and commodities belonging to the ſame. And firſt touching the ſtocke where-

Of Kine. with to furniſh Dairies, it is to be vnderſtood that they muſt be Kine of the beſt choice & breed that our *English House-wife* can poſſibly attaine vnto, as of big bone, faire ſhape, right bred, and deepe of milke, gentle, and kindely.

Bigneſſe of Kine. Touching the bigneſſe of bone, the larger that euery Cow is, the better ſhee is: for when either age, or miſchance ſhall diſable her for the paile, being of large bone, ſhee may be fed, and made fit for the ſhambles, and ſo no loſſe, but profit, and any other to the paile as good and ſufficient as her ſelfe.

Shape of Kine. For her ſhape it muſt a little differ from the Butchers rules; for being choſe for the Dairy, ſhee muſt haue all the ſignes of plenty of milke, as a crumpled horne, a thinne necke, a hairy dewlappe, and a very large vdder, with foure teates, long, thicke, and ſharpe at the ends, for the moſt part either all white, of what colour ſoeuer the Cow be; or at leaſt the fore part thereof, and if it be well haird before and behinde, and ſmooth in the bottome, it is a good ſigne alſo.

As

As touching the right breed of Kine through our nation, it generally affoordeth very good ones, yet ſome countries doe farre exceed other countries; as *Cheſſhire*, *Lancaſhire*, *Yorke-ſhire*, and *Darbie ſhire* for blacke Kine; *Gloceſter-ſhire*, *Somerſet-ſhire*, and ſome part of *Wilt-ſhire* for red Kine, and *Lincolne-ſhire* pide Kine: and from the breeds of theſe Countries generally doe proceede the breeds of all other, howſoeuer diſperſed ouer the whole Kingdome. Now for our *Houſe-wifes* direction, ſhee ſhall chooſe her Dairy from any of the beſt breeds before named, according as her opinion and delight ſhall gouerne her, onely obſeruing not to mixe her breeds of diuers kinds, but to haue all of one intire choice without variation, becauſe it is vnprofitable; neither muſt you by any meanes haue your Bull a forrener from your Kine, but abſolutely either of one country, or of one ſhape & colour: againe in the choice of your kine, you muſt looke diligently to the goodnes & fertility of the ſoile wherein you liue, & by all meanes buy no K ne from a place that is more fruitfull then your owne, but rather harder; for the latter will proſper & come on, the other wil decay & fal into diſeaſe; as the piſſing of blood and ſuch like, for which diſeaſe & all other you may find aſſured cures in the former booke, called *cheape & good*. The breed of Kine.

For the depth of milke in Kine (which is the giuing of moſt milke) being the maine of a *Houſe-wifes* profit, ſhee ſhall be very carefull to haue that quallity in her beaſts. Now thoſe Kine are ſaid to be deepeſt of milke, which are new bare; that is which haue but lately calued, and haue their milke deepe ſpringing in their vdders, for at that time ſhe giueth the moſt milke; and if the quantity then be not conuenient, doubtleſſe the Cow cannot be ſaid to be of deepe milch. and for the quantity Depth of milke in Kine.

quantity of milke, for a Cow to giue two gallons at a meale, is rare, and extraordinary; to giue a gallon and a halfe is much, and conuenient, and to giue but a gallon certaine is not to be found fault with: againe those Kine are said to be deepe of milke, which though they giue not so exceeding much milke as others, yet they giue a reasonable quantity, and giue it long as all the yeere through, whereas other Kine that giue more in quantity, will goe dry, being with calfe some three moneths, some two, and some one, but these will giue their vsuall measure, euen the night before they calue; and therefore are said to bee Kine deepe of milke. Now for the retained opinion, that the Cow which goeth not dry at all, or very little, bringeth not foorth so good a Calfe as the other, because it wanteth much of the nourishment it should enioye, it is vaine and friuolous; for should the substance from whence the milke proceedeth conuert to the other intended nourishment, it would be so superabundant, that it would conuert either to disease or putrifaction: but letting these secret reasons passe, there be some kine which are so exceedingly full of milke, that they must be milkt at least thrice a day, at morning, noone, and euening, or else they will shed their milke, but it is a fault rather then a vertue, and proceedeth more from a laxatiuenesse or loosenesse of milke, then from any abundance; for I neuer saw those three meales yet equall the two meales of a good Cow, and therefore they are not truly called deepe of milke.

Quantity of milke.

Of the going dry of Kine.

Touching the gentlenesse of kine, it is a vertue as fit to be expected as any other, for if she be not affable to the maide, gentle and willing to come to the paile, and patient to haue her duggs drawne without skittishnesse, striking or wildnesse, shee is vtterly vnfit for the dayry.

Of the gentlenesse of Kine.

As

As a Cow muſt be gentle to her milker, ſo ſhee muſt be kind in her owne nature; that is, apt to conceiue, and bring foorth, fruitfull to nouriſh, and louing to that which ſprings from her; for ſo ſhe bringeth foorth a double profit; the one for the time preſent which is in the dairy; the other for the time to come; which is in the maintenance of the ſtocke, and vpholding of breed. Of kindlineſſe in Kine.

The beſt time for a Cow to calue in for the dairy, is in the latter end of *March*, and all *Aprill*; for then graſſe beginning to ſpring to its perfect goodneſſe, will occaſion the greateſt increaſe of milke that may be: and one good early Cow will countervaile two latter, yet the calues thus calued are not to be reared, but ſuffered to feed vpon their Dammes beſt milke, and then to be ſold to the Butchers, and ſurely the profit will equall the charge; but thoſe Calues which fall in *October*, *November*, or any time of the depth of winter may well be reared vp for breed, becauſe the maine profit of the Dairy is then ſpent, and ſuch breed will hold vp any calues which are calued in the prime daies, for they generally are ſubiect to the diſeaſe of the Sturdy, which is dangerous and mortall. The beſt time to calue in, for the dairy or breed.

The *Houſe-wife* which onely hath reſpect to her Dairy, and for whoſe knowledge this diſcourſe is written (for we haue ſhewed the *Graſier* his office in the *Engliſh Husband-man*) muſt reare her Calues vp on the finger with ſloten milke, and not ſuffer them to run with the dammes, the generall manner whereof, and the cure of all the diſeaſes incident to them and all other cattell is fully declared in the booke called *Cheape and good*. Roaring of Calues.

To proceed then to the geneall vſe of Dairies, it conſiſteth firſt in the cattell (of which we haue ſpoken ſufficiently) then in the houres of milking, the ordering The generall vſe of dairies.

of the milke, and the profits ariſing from the ſame.

The howers of milking.

The beſt and moſt commended howers for milking, are indeed but two in the day, that in the ſpring and ſummer time which is the beſt ſeaſon for the dairy, is betwixt fiue and ſixe in the morning, and ſixe and ſeuen a clocke in the euening: and although nice and curious *Houſe-wiues* wil haue a third houre betwixt them, as betweene twelue and one in the after-noone, yet the better experienſt doe not allow it, and ſay as I beleeue, that two good meales of milke are better euer then three bad ones; alſo in the milking of a Cow, the woman muſt ſit on the neere ſide of the Cow, ſhe muſt gently at the firſt handle and ſtretch her dugges, and moyſten them with milke that they may yeeld out the milke the better and with leſſe paine: ſhe ſhall not ſettle her ſelfe to milke, nor fixe her paile firme to the ground till ſhe ſee the cowe ſtand ſure and firme, but be ready vpon any motion of the Cow to ſaue her paile from ouerturning; when ſhe ſeeth all things anſwerable to her deſire, ſhe ſhall then milke the cow boldly, & not leaue ſtretching and ſtraining of her teats till not one drop of milke more will come from them, for the worſt poynt of *Houſe-wifery* that can be, is to leaue a Cowe halfe milkt; for beſides the loſſe of the milke, it is the onely way to make a cowe dry and vtterly vnprofitable for the Dairy: the milke-mayd whilſt ſhe is in milking, ſhall doe nothing raſhly or ſuddenly about the cowe, which may affright or amaſe her, but as ſhe came gently, ſo with all gentleneſſe ſhe ſhall depart.

Maneer of Milking.

The ordering of Milke.

Touching the well ordering of milke after it is come home to the Dairy, the maine point belongeth thereunto is the *Houſe-wifes* cleanlines in the ſweet and neate keeping of the Dairy-houſe; where not the leaſt moate

of

of any filth may by any meanes appeare, but all things either to the eie or noſe ſo void of ſowerneſſe or ſluttiſhneſſe, that a Princes bed-chamber muſt not exceed it: to this muſt be added the ſweete and delicate keeping of her milke veſſels, whether they be of wood, earth or lead, the beſt of which is yet diſputable with the beſt *Houſe-wifes*; onely this opinion is generally receiued, that the woodden veſſell which is round and ſhallow is beſt in cold vaults, the earthen veſſels principall for long keeping, and the leaden veſſell for yeelding of much Creame: but howſoeuer, any and all theſe muſt bee carefully ſcalded once a day, and ſet in the open ayre to ſweeten, leſt getting any taint of ſowerneſſe into them, they corrupt the milke that ſhall be put therein. Ordering of milke veſſels.

But to proceede to my purpoſe, after your milke is come home, you ſhall as it were ſtraine it from all vncleane things, through a neate and ſweete kept Syle-diſh, the forme whereof euery *Houſe-wife* knowes, and the bottome of this Syle, through which the milke muſt paſſe, ſhall bee couered with a very cleane waſht fine linnen cloth, ſuch an one as will not ſuffer the leaſt mote or haire to go through it; you ſhall into euery veſſell ſyle a pretty quantity of milke, according to the proportion of the veſſell, the broader it is, and the ſhallower it is, the better it is, and yeeldeth euer the moſt creame, and keepeth the milke longeſt from ſowring. Syling of Milke.

Now for the profit ariſing from milke, they are three of eſpeciall account, as Butter, Cheeſe, and Milke, to be eaten either ſimple or compounded: as for Curds, ſowre Milke, or Wigge, they come from ſecondary meanes, and therefore may not bee numbred with theſe. Profits ariſing from milke.

For your Butter which onely proceedeth from the Of Butter.

Creame, which is the very heart and ſtrength of Milke, it muſt be gathered very carefully, diligently, and painefully: And though cleanlineſſe be ſuch an ornament to a Houſe-wife, that if ſhee want any part thereof, ſhee loſeth both that and all good names elſe: yet in this action it muſt be more ſeriouſly imploied then in any other.

Of fleeting Creame.

To beginne then with the fleeting or gathering of your Creame from the Milke, you ſhall doe it in this manner: the Milke which you doe milke in the morning you ſhall with a fine thinne ſhallow diſh made for the purpoſe, take of the Creame about fiue of the clocke in the euening; and the Milke which you did milke in the euening, you ſhall fleete and take of the Creame aboue fiue of the clocke the next morning; and the creame ſo taken of, you ſhall put into a cleane ſweete and well leaded earthen pot cloſe couered, and ſet in a coole place.

Of keeping Creame.

And this creame ſo gathered you ſhall not keepe aboue two daies in the Summer, and not aboue foure in the Winter, if you will haue the ſweeteſt and beſt butter; and that your Dairy containe fiue Kine or more: but how many or few ſoeuer you keepe, you ſhal not by any meanes preſerue your Creame aboue three daies in Summer, and not aboue ſixe in the Winter.

Of churning Butter and the daies.

Your Creame being neately and ſweet kept, you ſhall churne or churne it on thoſe vſuall daies which are fitteſt either for your vſe in the houſe, or the markets adioyning neere vnto you, according to the purpoſe for which you keepe your Dairy. Now the daies moſt accuſtomable held amongſt ordinary *Houſe-wiues*, are Tueſday and Friday: Tueſday in the afternoone, to ſerue Wedneſday morning market, and Friday morning to ſerue Saturday-market; for Wedneſday and Saturday are the moſt generall market daies of this King-

dome,

dome, and Wedneſday, Friday, and Saturday, the vſuall faſting dayes of the weeke; and ſo meeteſt for the vſe of butter. Now for churning, take your creame and through a ſtrong and cleane cloth ſtraine it into the churne; and then couering the churne cloſe, and ſetting it in a place fit for the action in which you are imployd (as in the Summer) in the cooleſt place of your dairy, and exceeding early in the morning, or very late in the euening, and in the Winter, in the warmeſt place of your dairy, and in the moſt temperate houres, as about noone, or a little before or after, and ſo churne it, with ſwift ſtrokes, marking the noiſe of the ſame which will be ſolid, heauy and intyre, vntill you heare it alter, and the ſound is light, ſharpe, and more ſpirity: and then you ſhall ſay that your butter breakes, which perceiued both by this ſound, the lightneſſe of the churne-ſtaffe, and the ſparkes and drops, which will appeare yellow about the lippe of the churne, and cleanſe with your hand both the lidde and inward ſides of the churne, and hauing put all together, you ſhall couer the churne againe, and then with eaſie ſtrokes round, and not to the bottome, gather the butter together into one intire lumpe and body, leauing no pieces thereof ſeuerall or vnioyned.

Helpes in churning.

Now for as much as there be many miſchiefes and inconueniences which may happen to butter in the churning, becauſe it is a body of much tenderneſſe, and neither will endure much heate, nor much cold; for if it be ouer-heated, it will looke white, crumble, and be bitter in taſte; and if it be ouer-cold, it will not come at all, but make you waſte much labour in vaine, which faults to helpe, if you churne your butter in the heate of Summer, it ſhall not be amiſſe, if during the time of your

churning you place your churne in a paile of cold water as deepe as your Creame riſeth in the churne; and in the churning thereof let your ſtroakes goe ſlow, and be ſure that your churne be cold when you put in your Creame: but if you churne in the coldeſt time of winter, you ſhall then put in your creame before the churne be cold, after it hath beene ſcalded; and you ſhall place it within the aire of the fire, and churne it with as ſwift ſtroakes, and as faſt as may be, for the much labouring thereof will keepe it in a continuall warmth, and thus you ſhall haue your butter good; ſweete, and according to your wiſh. After your butter is churnd, or churnd and gathered well together in your churne, you ſhall then open your churne, and with both your hands gather it well together, and take it from the butter-milke, and put it into a very cleane boule of wood, or panſhion of earth ſweetned for the purpoſe, and if you intend to ſpend the butter ſweete and freſh, you ſhall haue your boule or panſhion filled with very cleane water, and therein with your hand you ſhall worke the butter, turning and toſſing it to and fro, till you haue by that labour beaten & waſht out all the butter-milke, & brought the butter to a firme ſubſtance of it ſelfe, without any other moiſture: which done, you ſhall take the butter from the water, and with the point of a knife ſcoch and flaſh the butter ouer and ouer euery way ſo thicke as is poſſible, leauing no part through which your knife muſt not paſſe; for this will clenſe and fetch out the ſmalleſt haire or mote, or ragge of a ſtrainer, and any other thing which by caſuall meanes may happen to fall into it.

The handling of butter.

Clenſing of butter.

After this you ſhall ſpread the butter in a boule thin, and take ſo much ſalt as you ſhall thinke conuenient, which muſt by no meanes be much for ſweete butter, and

Seaſoning of butter.

and ſprinkle it thereupon, then with your hands worke the butter and the ſalt exceedingly well together, and then make it vp either into diſhes, pounds, or halfe pounds at your pleaſure.

If during the moneth of *May* before you ſalt your butter you ſaue a lumpe thereof, and put it into a veſſell, and ſo ſet it into the Sun the ſpace of that moneth, you ſhall finde it exceeding ſoueraigne and medicinable for wounds, ſtraines, aches, and ſuch like grieuances. Of May butter.

Touching the poudring vp or potting of butter, you ſhall by no meanes as in freſh butter waſh the butter-milke out with water, but onely worke it cleere out with your hands: for water will make the butter ruſty, or reeſle; this done you ſhall weigh your butter, and know how many pounds there is thereof: for ſhould you weigh it after it were ſalted, you would be deceiued in the weight: which done, you ſhall open the butter, and ſalt it very well and throughly, beating it in with your hand till it be generally diſperſt through the whole butter; then take cleane earthen pots, exceedingly well leaded leaſt the brine ſhould leake through the ſame, and caſt ſalt into the bottome of it: then lay in your butter, and preſſe it downe hard within the ſame, and when your pot is filled, then couer the top thereof with ſalt ſo as no butter be ſeene: then cloſing vp the pot let it ſtand where it may be cold and ſafe: but if your Dairy be ſo little that you cannot at firſt fill vp the pot, you ſhall then when you haue potted vp ſo much as you haue, couer it all ouer with ſalt and pot the next quantity vpon it till the pot be full. Of powdering vp or potting of butter.

Now there be *Houſ-wiues* whoſe Dairies being great, can by no meanes conueniently haue their butter con-

Of great dairies and their cuſtomes.

tained in pots; as in *Holland*, *Suffolke*, *Norfolke*, and ſuch like, and therefore are firſt to take barrels very cloſe and well made, and after they haue ſalted it well, they fill their barrels therewith; then they take a ſmall ſticke, cleane and ſweete, and therewith make diuers holes downe thorough the butter, euen to the bottome of the barrell: and then make a ſtrong brine of water and ſalt which will beare an egge, and after it is boyl'd, well skimm'd and cool'd; then powre it vpon the top of the butter till it ſwimme aboue the ſame, and ſo let it ſettle. Some vſe to boyle in this brine a branch or two of Roſemary, and it is not amiſſe, but pleaſant and wholeſome.

When to pot Butter.

Now although you may at any time betwixt *May* and *September* pot vp butter, obſeruing to doe it in the cooleſt time of the morning: yet the moſt principall ſeaſon of all is in the moneth of *May* onely: for then the aire is moſt temperate, and the butter will take ſalt the beſt, and the leaſt ſubiect to reeſing.

Vſe of Buttermilke.

The beſt vſe of buttermilke for the able *Houſe wife*, is charitably to beſtow it on the poore neighbours, whoſe wants doe dayly cry out for ſuſtenance: and no doubt but ſhe ſhall finde the profit thereof in a diuine place, as well as in her earthly buſineſſe: But if her owne wants command her to vſe it for her owne good, then ſhe ſhall of her butter milke make curds, in this manner: ſhe ſhall take her butter-milke and put it into a cleane earthen veſſell, which is much larger then to receiue the butter-milke onely; and looking vnto the quantity thereof, ſheſhall take as it were a third part ſo much new milke, and ſet it on the fire, and when it is ready to riſe, take it off and let it coole a little: then powre it into the buttermilk in the ſame manner as you would

Of Buttermilke Curds.

would make a posset, and hauing stirred it about, let it stand: then with a fine skummer, when you will vse the curds (for the longer it stands the better the curds will eate) take them vp into a cullander and let the whey drop well from it: and then eate them either with Creame, Ale, Wine, or Beere: as for the whey, you may keepe it also in a sweete stone vessell: for it is that which is called Whigge, and is an excellent coole drinke and a wholesome; and may very well be drunke a summer through in sted of any other drinke, and without doubt will slake the thirst of any labouring man as well, if not better. Of Whigge.

The next maine profit which ariseth from the Dairy is cheese, of which there be diuerse kinds, as new milke, or morrow milke cheese, nettle cheese, floaten milke cheese, and eddish, or after-math-cheese, all which haue their seuerall orderings and compositions, as you shall perceiue by the discourse following: yet before I do begin to speake of the making of the cheese, I will shew you how to order your *Cheeselep-bag* or *Runnet*, which is the most principall thing wherewith your cheese is compounded, and giueth the perfect tast vnto the same. Of Cheese.

The *Cheeselep-bag* or *Runnet*, which is the stomacke bagge of a yong suckling calfe, which neuer tasted other food then milke, where the curd lieth vndigested. Of these bagges you shall in the beginning of the yeare prouide your selfe good store, and first open the bag and powre out into a cleane vessell the curd and thicke substance thereof; but the rest which is not curdled you shall put away: then open the curd and picke out of it all manner of motes, chiers of grasse, or other filth gotten into the same: Then wash the curd in so many cold waters, till it be as white and cleane from all Of the Cheeselep-bagge or Runnet.

sorts

ſorts of moates as is poſſible; then lay it on a cleane cloth that the water may draine from it, which done, ley it in another dry veſſell, then take a handfull or two of ſalt and rubbe the curd therewith exceedingly: then take your bagge and waſh it alſo in diuerſe cold waters till it be very cleane, and then put the curd and the ſalt vp into the bag, the bagge being alſo well rub'd within with ſalt: and ſo put it vp, and ſalt the outſide alſo all-ouer: and then cloſe vp the pot cloſe, and ſo keepe them a full yeare before you vſe them. For touching the hanging of them vp in chimney corners (as courſe *Houſe-wiues* do) is ſluttiſh, naught, and vnwholeſome, and the ſpending of your runnet whilſt it is new, makes your cheeſe heaue and proue hollow.

Seaſoning of the runnet.

When your runnet or earning is fit to be vſed, you ſhall ſeaſon it after this manner; you ſhall take the bag you intend to vſe, and opening it, put the curd into a ſtone morter or a bowle, and with a wooden peſtle or a roling pinne beate it exceedingly; then put to it the yelkes of two or three egges, and halfe a pint of the thickeſt and ſweeteſt creame you can ſleete from your milke, with a peny-worth of ſaffron finely dried and beaten to powder, together with a little Cloues and Mace, and ſtirre them all paſſing well together till they appeare but as one ſubſtance, and then put it vp in the bagge againe: then you ſhall make a very ſtrong brine of water and ſalt, and in the ſame you ſhall boile a handfull or two of Saxifrage, and then when it is cold cleare it into a cleane earthen veſſell; then take out of the bag halfe a doſen ſpoonfull of the former curd and mixe it with the brine, then cloſing the bagge vp againe cloſe hang it within the brine, and in any caſe alſo ſteepe in your brine a few Wall-nut-tree leaues, and ſo keepe your

your runnet a fortnight after before you vſe it; and in this manner dreſſe all your bagges ſo, as you may euer haue one ready after another, and the youngeſt a fortnight olde euer at the leaſt, for that will make the earning quicke and ſharpe, ſo that foure ſpoonefuls thereof will ſuffice for the gathering and ſeaſoning of at leaſt twelue gallons of milke, and this is the choyſeſt and beſt earning which can poſſible be made by any *Houſewife.*

To make a new milke or morning milke Cheeſe, which is the beſt cheeſe made ordinarily in our Kingdome; you ſhall take your milke early in the morning as it comes from the Cow, and ſyle it into a cleane tubbe, then take all the creame alſo from the milke you milkt the euening before, and ſtraine it into your new milke: then take a pretty quantity of cleane water, and hauing made it ſcalding hot, poure it into the milke alſo to ſcald the creame and it together, then let it ſtand, and coole it with a diſh til it be no more then lukew arme, then go to the pot where your earning bags hangs, and draw from thence ſo much of the earning without ſtirring of the bag, as will ſerue for your proportion of milke, & ſtraine it therein very carefully; for if the leaſt mote of the curd of the earning fal into the cheeſe, it will make the cheeſe rot and mould, when your earnings is put in you ſhall couer the milke, and ſo let it ſtand halfe an howre or thereabouts; for if the earning be good it will come in that ſpace; but if you ſee it doth not, then you ſhall put in more: being come, you ſhall with a diſh in your hand breake and maſhe the curde together, poſſing and turning it about diuerſly: which done, with the flat palmes of your hands very gently preſſe the curde downe into the bottome of the tubbe, then with

To make a new Milke cheeſe compound.

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a thinne diſh take the whey from it as cleane as you can, and ſo hauing prepared your Cheeſe-fat anſwerable to the proportion of your curd with both your hands ioyned together, put your curd therein and breake it and preſſe it down hard into the fat till you haue fild it; then lay vpon the top of the curd your flat Cheeſe-boord, and a little ſmall weight thereupon, that the whey may drop from it into the vnder veſſell; when it hath done dropping, take a large Cheeſe-cloth, and hauing wet it in the cold water, lay it on the Cheeſe-boord, and then turne the Cheeſe vpon it; then lay the cloth into the Cheeſe-fat: and ſo put the Cheeſe therein againe, and with a thin ſlice thruſt the ſame downe cloſe on euery ſide: then laying the cloth alſo ouer the top to lay on the Cheeſe boord, and ſo carry it to your great preſſe, and there preſſe it vnder a ſufficient waight: after it hath beene there preſt halfe an houre, you ſhall take it and turne it into a dry cloth, and put it into the preſſe againe, and thus you ſhall turne it into dry cloaths at leaſt fiue or ſixe times in the firſt day, and euer put it vnder the preſſe againe, not taking it there-from, till the next day in the euening at ſooneſt, & the laſt time it is turned, you ſhall turne it into the dry fat without any cloth at all.

When it is preſt ſufficiently and taken from the fat, you ſhall then lay it in a kimnell, and rub it firſt on the one ſide, and then on the other with ſalt, and ſo let it lie all that night, then the next morning, you ſhall doe the like againe, and ſo turne it vpon the brine, which comes from the ſalt two or three dayes or more, according to the bigneſſe of the Cheeſe, and then lay it vpon a faire table or ſhelfe to drie, forgetting not euery day once to rubbe it all ouer with a cleane cloth, and then to turne it, till ſuch time that it be throughly drie, and fit to goe into

into the Cheese hecke: ad in this manner of drying you must obserue to lay it first where it may dry hastily, and after where it may dry at more leysure: thus may you make the best and most principall cheese.

A Cheese of two meales.

Now if you will make Cheese of two meales, as your mornings new milke, and the euenings Creame, milke and all you shall doe but the same formerly rehearsed. And if you will make a simple morrow milke Cheese, which is all of newe milke and nothing else, you shall then doe as is before declared, onely you shall put in your earning so soone as the milke is fild (if it haue any warmth int) and not scald it: but if the warmth be loft you shall put it into a kettle and giue it the ayre of the fire.

Cheese of one meale.

Of Nettle Cheese.

If you will haue a very dainty nettle Cheese, which is the fineft summer cheese which can bee eaten; you shall doe in all things as was formerly taught in the new milke cheese compound; Onely you shall put the curde into a very thinne cheese-fat, not aboue halfe an inch or a little better deepe at the most, and then when you come to dry them assoone as it is drained from the brine, you shall lay it vpon fresh nettles and couer it all ouer with the same; and so lying where they may feele the ayre, let them ripen therein, obseruing to renew your nettles once in two danes, and euery time you renewe them, to turne the cheese or cheeses, and to gather your Nettles as much without stalkes as may be, and to make the bed both vnder and aloft as smooth as may be, for the more euen and fewer wrinkles that your cheese hath, the more dainty is your *House-wife* accounted.

Of floaten-milk Cheese.

If you will make floaten milke cheese, which is the courtest of all cheses, you shall take some of the milke

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and heate it vpon the fire to warme all the reſt: but if it be ſo ſowre that you dare not aduenture the warming of it for feare of breaking, then you ſhall heate water, and with it warme it, then put in your earning as before ſhewed, and gather it, preſſe it, ſalt it, and dry it as you did all other Cheeſes.

Of eddiſh Cheeſe.

Touching your eddiſh Cheeſe or winter Cheeſe, there is not any difference betwixt it and your ſummer Cheeſe touching the making thereof onely, becauſe the ſeaſon of the yeere denieth a kindly drying or hardning thereof, it differeth much in taſte, and will be ſoft alwaies; and of theſe eddiſh Cheeſes you may make as many kinds as of ſummer Cheeſes, as of one meale, two meales, or of milke that is floaten.

Of Whey and the profits.

When you haue made your Cheeſe, you ſhall then haue care of the Whey, whoſe generall vſe differeth not from that of butter-milke, for either you ſhall preſerue it to beſtow on the poore, becauſe it is a good drinke for the labouring man, or keepe it to make curds out of it, or laſtly to nouriſh and bring vp your ſwine.

Of Whey curds.

If you will make curds of your beſt Whey, you ſhall ſet it vpon the fire, and being ready to boyle, you ſhall put into it a pretty quantity of butter-milke, and then as you ſee the Curds ariſing vp to the top of the Whey, with a skummer skim them off, and put them into a Cullender, and then put in more butter-milke, and thus doe whileſt you can ſee any Curds ariſe; then the Whey being drained cleane from them, put them into a cleane veſſell, and ſo ſerue them forth as occaſion ſhall ſerue.

CHAP.

Chap 7.

The Office of the Malſter, and the ſeuerall ſecrets, and knowledges belonging to the making of Malt.

IT is moſt requiſite and fit that our *Houſ-wife* be experienced and well practiſed in the well making of Malt, both for the neceſſary and continuall vſe thereof, as alſo for the generall profit which accrueth and ariſeth to the *Huſband, Houſwife*, and the whole family: for as from it is made the drinke, by which the houſhold is nouriſhed and ſuſtained, ſo to the fruitfull husbandman (who is the maſter of rich ground, and much tillage) it is an excellent merchandize, & a commodite of ſo great trade, that not alone eſpeciall Townes and Counties are maintained thereby, but alſo the whole Kingdom, and diuers others of our neighboring Nations. This office or place of knowledge belongeth particularly to the *Houſ-wife*; and though we haue many excellent Men-malſters, yet it is properly the worke and care of the woman, for it is a houſe-worke, and done altogether within dores, where generally lieth her charge; the Man only ought to bring in, and to prouide the graine, and excuſe her from portage or too heauy burthens; but for the Art of making the Malt, & the ſeuerall labours appertaining to the ſame, euen from the Fat to the Kilne, it is onely the worke of the *Houſ-wife* and the Maid-ſeruants to her appertaining.

To begin then with the firſt knowledge of our Malſter, it conſiſteth in the election and choiſe of graine fit to make Malt on, of which there are indeed truely but two kinds, that is to ſay, Barley, which is of all other

Election of Corne for Malt.

other the moſt excellent for this purpoſe; and Oates, which when Barly is ſcant or wanting, maketh alſo a good and ſuffi ient Malt: and though the drinke which is drawne from it be neither ſo much in the quantity, ſo ſtrong in the ſubſtance, nor yet ſo pleaſant in the taſte, yet is the drinke very good and tolerable, and nouriſhing enough for any reaſonable creature. Now I doe not deny, but there may be made Malt of Wheate, Peaſe, Lupins, Fetches &ſuch like, yet it is with vs of no retained cuſtome, nor is the drinke ſimply drawne or extracted from thoſe graines, either wholſome or pleaſant, but ſtroug and fulſome; therefore I thinke it not fit to ſpend any time in treating of the ſame. To ſpeake then of the election of Barly, you ſhall vnderſtand that there be diuers kinds thereof, according to the alteration of ſoyles, ſome being big, ſome little, ſome full, ſome empty, ſome white, ſome browne, and ſome yellow: but I will reduce all theſe into three kinds, that is, into the Clay-Barly, the Sand-Barly, and the Barly which groweth on the mixt ſoyle. Now the beſt Barly to make Malt on, both for yeelding the greateſt quantity of matter, and making the ſtrongeſt, beſt and moſt wholeſome drinke, is the Clay-Barly well dreſt, being cleane Corne of it ſelfe, without weede or Oates, white of colour, full in ſubſtance, and ſweete in taſte: that which groweth on the mixt grounds is the next; for though it be ſubiect to ſome Oates and ſome Weedes: yet being painefully and carefully dreſt, it is a faire and a bould corne, great and full, and though ſomewhat browner then the former, yet it is of a faire and cleane complexion. The laſt and worſt graine for this purpoſe is the Sand-Barly, for although it be ſeldome or neuer mixt with Oates, yet if the tillage be not painefully and cunningly handled,

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it is much ſubiect to weedes of diuerſe kinds, as tares, fetches, and ſuch like, which drinke vp the liquor in the brewing, and make the yeeld or quantity thereof very little and vnprofitable: beſides, the graine naturally of it ſelfe hath a yellow, withered, empty huske, thicke and vnfurniſhed of meale, ſo that the drinke drawne from it can neither be ſo much, ſo ſtrong, ſo good, nor ſo pleaſant; ſo that to conclude, the cleane Clay-barley is beſt for profit in the ſale drinke for ſtrength and long laſting.

The Barley in the mixt grounds will ſerue well for houſholds and families: and the ſandy barley for the poore, and in ſuch places where better is not to be gotten. And theſe are to be knowne of euery *Husband* or *Houſe-wife*: the firſt by his whiteneſſe, greatneſſe and fulneſſe: the ſecond by his browneneſſe, and the third by his yellowneſſe, with a darke browne nether ende, and the emptineſſe and thickneſſe of the huske (and in this election of Barley) you ſhall note, that if you finde in it any wild oates, it is a ſigne of a rich clay-ground, but ill husbanded, yet the malt made thereof is not much amiſſe, for both the wilde oate and the perfit oate giue a pleaſant ſharpe reliſh to the drinke, if the quantity be not too much, which is euermore to be reſpected. And to conclude this matter of election, great care muſt be had of both *Husband* and *Houſe-wife*, that the barley choſen for malt, be exceeding ſweete, both in ſmell and taſte, and very cleane dreſt: for any corruption maketh the malt loathſome, and the foule dreſſing affordeth much loſſe.

Of th Malt-houſe, and the ſituation.

After the skilfull election of graine for malt, the *Houſe wife* is to looke to the ſituation, goodneſſe and apt accommodation of the Malt-houſe; for in that conſiſteth

ſiſteth both much of the skill, and much of the profit; for the generall ſituation of the houſe, it would (as neere as can be) ſtand vpon firme dry ground, hauing proſpect euery way, with open windowes and lights to let in the Wind, Sunne, and Ayre, which way the Malſter pleaſeth, both to coole and comfort the graine at pleaſure, and alſo cloſe-ſhuts or draw-windowes to keepe out the Froſts and Stormes, which are the onely lets and hinderances for making the malt good and perfect, for the model or forme of theſe houſes, ſome are made round, with a court in the middle, ſome long, and ſome ſquare, but the round is the beſt, and the leaſt laborious; for the Ceſternes or Fats being placed (as it were) at the head, or beginning of the circkle, and the pumpe or well (but the pumpe is beſt) being cloſe adioyning, or at leaſt by conueyance of troughes made as vſefull as if it were neere adioyning, the Corne being ſteept, may with one perſons labour and a ſhouell, be caſt from the fat, or ceſterne to the flowre and there coucht; then when the couch is broken it may in the turning either with the hand or the ſhouell, be carried in ſuch a circular houſe round about from one flowre to another, till it come to the kilne, which would alſo be placed next ouer againſt the pumpe and ceſternes, and all contained vnder one roofſe; and thus you may empty ſteeping after ſteeping, and carrie them with one perſons labour from flowre to flowre, till all the flowres be fild: in which circular motion you ſhall finde, that euer that which was firſt ſteept, ſhall firſt come to the Kilne, and ſo conſequently one after another in ſuch ſort as they were ſteeped; and your worke may euermore be conſtant, and your flowres at no time empty but

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at your owne pleaſure, and all the labour done onely with the hand and ſhouell, without carrying or re-carrying, or lifting heauie burthens, is both troubleſome and offenſiue, and not without much loſſe, becauſe in ſuch cales euer ſome graine ſcattereth.

Now ouer againſt the Kilne-hole or Furnace (which is euermore intended to bee on the ground) ſhould a conuenient place be made to pile the fuell for the Kilne, whether it bee Strawe, Bracken, Furres, Wood, Coale, or other fewell; but ſweete Straw is of all other the beſt and neareſt. Now it is intended that this mault-houſe may be made two Stories in height, but no higher: ouer your Ceſternes ſhall be made the Garners wherein to keepe your Barley before it be ſteeped: in the bottomes of theſe Garners, ſtanding directly ouer the Ceſternes, ſhall bee conuenient holes made to open and ſhut at pleaſure, through which ſhall runne downe the Barley into the Ceſterne. Ouer the bed of the Kilne can bee nothing but the place for the Haire cloth, and a ſpacious roofe open euery way, that the ſmoake may haue free paſſage, and with the leaſt ayre bee carried from the Kilne, which maketh the malte ſweete and pleaſant. Ouer that place where the fewell is piled, and is next of all to the bed of the Kilne, would likewiſe bee other ſpacious Garners made, ſome to receiue the Malte aſſoone as it is dried with the Come and Kilne-duſt, in which it may lye to mellow and ripen, and others to receiue the Malt after it is skreened and dreſt vp; for to let it bee too long in the Come, as aboue three moneths at longeſt, will make it both corrupt, and breede Weeuels and other Wormes, which are the greateſt deſtroyers of malt that may be. And theſe garners ſhould be ſo conue-

niently plac't before the front of the Kilne-bed, that either with the ſhouell or a ſmall ſcuttle you may caſt, or carrie the malt once dryed into the Garners. For the other part of the flowers, they may be imployed as the ground flowers are for the receiuing of the malt when it comes from the ceſterne: and in this manner, and with theſe accommodations you may faſhion any malt-houſe either round, long, ſquare, or of what proportion ſoeuer, as either your eſtate, or the conuenience of the ground you haue to build on ſhall adminiſter.

Of Malt-flowers.

Next to the cite or proportion of the ground, you ſhall haue a principall care for the making of your malt-flowers, in which (all the cuſtome, and the nature of the ſoile binds many times a man to ſundry inconueniences, and that a man muſt neceſſarily build according to the matter he hath to build withal, from whence ariſeth the many diuerſities of malt-flowers) yet you ſhall vnderſtand, that the generall beſt malt-flowre, both for Summer and Winter, and all ſeaſons, is the caue or vaulted areh which is hewed out of a drye and mayne greetie rocke, for it is both warme in Winter, coole in Summer, and generally comfortable in all ſeaſons of the yeare whatſoeuer. For it is to be noted, that all be *Houſe-wiues* do giue ouer the making of malt in the extreame heate of Summer, it is not becauſe the malt is worſe that is made in Summer then that which is made in winter, but becauſe the flowres are more vnſeaſonable, and that the Sunne getting a power into ſuch open places, maketh the graine which is ſteeped to ſproute and come ſo ſwiftly, that it cannot indure to take time on the flowre, and get the right ſeaſoning which belongeth to the ſame: whereas theſe kind of vaults being dry, and as it were couche vnder

vnder the ground, not onely keepeth out the Sunne in Summer, which maketh the Malt come much too faſt, but alſo defendeth it from froſts and colde bitter blaſtes in ſharpe Winters, which will not ſuffer it to come, or ſproute at all; or if parte doe come and ſproute, as that which lyeth in the heart of the bed; yet the vpper partes and outſide by meanes of extreame colde cannot ſproute: but being againe dryed, hath his firſt hardneſſe, and is one and the ſame with rawe Barley; for euery *Houſe-wife* muſt knowe, that if malt do not come as it were altogether, and at an inſtant, and not one come more then another, the malt muſt needes be very much imperfect: The next flower to the Caue, or drye ſandy Rocke, is the flower which is made of earth, or a ſtiffe ſtrong binding Claye well watered, and mixt with Horſe-dung, and Soape-aſhes, beaten and wrought together, till it come to one ſollide firmeneſſe; this Flower is a very warme comfortable Flower in the Winter ſeaſon, and will helpe the graine to come and ſproute exceedingly, and with the helpe of windowes to let in the colde ayre, and to ſhut out the violent reflection of the Sunne, will ſerue very conueniently for the making of malt, for nine monethes in the yeare, that is to ſay, from *September* till the ende of *May*; but for *Iune*, *Iuly*, and *Auguſt*, to imploye it to that purpoſe, will breede both loſſe, and incumbrance: The next Flower to this of earth, is that which is made of plaſter, or plaſter of paris, being burnt in a ſeaſonable time, and kept from wet, till the time of ſhooting, and then ſmoothly layde, and well leuelled; the imperfection of the plaſter flower is onely the extreame coldneſſe thereof, which in froſty and cold ſeaſons, ſo bindeth in the heart of the graine,

that it cannot ſproute, for which cauſe it behoueth euery Maltſter that is compelled to theſe Flowers, to looke well into the ſeaſons of the yeere, and when hee findeth either the Froſtes, Northerne blaſts, or other nipping ſtormes to rage too violently, then to make his firſt couches or beds, when the graine commeth newly out of the Ceſterne, much thicker and rounder then otherwiſe hee would doe; and as the colde abateth, or the corne increaſeth in ſprouting, ſo to make couches or beds thinner and thinner, for the thicker and cloſer the graine is coucht and layde together, the warmer it lyeth; and ſo catching heate, the ſooner it ſprouteth, and the thinner it lyeth the cooler it is, and ſo much the ſlower in ſprouting. This flowre, if the windowes be cloſe, and guard of the Sunne ſufficiently, will (if neceſſity compell) ſerue for the making of Malt ten moneths in the yeare, onely in *July* and *Auguſt* which containe the Dogge-dayes, it would not be imployed, not in the time of any Froſt, without great care and circumpection.

Againe, there is in this flowre another fault, which is a naturall caſting out of duſt, which much ſullieth the graine, and being dried, makes it looke dun and foule, which is much diſparagement to the Maltſter; therefore ſhe muſt haue great care that when the malt is taken away, to ſweepe and keepe her flowers as cleane and neate as may be. The laſt and worſt is the boarded flower, of what kind ſoeuer it be, by reaſon of the too much heate thereof, and yet of boarded flowers the Oken boarded is the cooleſt and longeſt laſting; the Elme or Beech is next; then the Aſhe, and the worſt (though it bee the faireſt to the eye) is the Firre, for it hath in it ſelfe (by reaſon of the Frankenſence and Turpen-

Turpentine which it holdeth) a naturall heate, which mixed with the violence of the Sunne in the Summer-time, forceth the graine not onely to ſproute, but to grow in the couch, which is much loſſe, and a foule imputation. Now theſe boarded flowers can hardly be in vſe for aboue fiue moneths at the moſt, that is to ſay, *October, November, December, Ianuary* and *February*: for the reſt, the Sunne hath too much ſtrength, and theſe boarded flowers too much warmth; and therefore in the cooleſt times it is good to obſerue to make the couches thinne, whereby the ayre may paſſe thorough the corne, and ſo coole it, that it may ſproute at leaſure.

Imperfect Flowers.

Now for any other flower beſides theſe alreadie named, there is not any good to malt vpon; for the common flowre which is of naturall earth, whether it be Claye, Sand or Grauell, if it haue no mixture at all with it more then it owne nature, by oft treading vpon it, groweth to gather the nature of ſaltneſſe or Salt-peter into it, which not onely giueth an ill taſte to the graine that is layde vpon the ſame, but alſo his moyſture and moldineſſe, which in the moyſt times of the yeare ariſe from the ground, it often corrupteth and putrifieth the corne. The rough paued flowre by reaſon of the vneuenneſſe, is vnfit to malt on, becauſe the graine getting into the crannies, doth there lye, and are not remoued or turned vp and downe as they ſhou'd be with the hand, but many times is ſo fixed to the ground, it ſprouteth and groweth vp into a greene blade, affoording much loſſe and hinderance to the owner.

The ſmooth paued flowre, or any flowre of ſtone whatſoeuer, is full as ill; for euery one of them naturally againſt much wet or chaunge of weather, will

ſweate and diſtill forth ſuch abundant moiſture, that the Malt lying vpon the ſame, can neither dry kindly and expell the former moiſture receiued in the ceſterne, but alſo by that ouer much moiſture many times rotteth, and comes to altogether vſeleſſe. Laſtly, for the flower made of Lime and Haire, it is as ill as any formerly ſpoken of, both in reſpect of the nature of the Lime, whoſe heate and ſharpnes is a maine enemy to Malt, or any moiſt corne, as alſo in reſpect of the weaknes and brittlenes of the ſubſtance thereof, being apt to molder and fall in pieces with the lighteſt treading on the ſame, and that lime and duſt once mixing with the corne, it doth ſo poiſon and ſuffocate it, that it can neither ſprout, nor turne ſeruiceable for any vſe.

Of the Kilne and the building thereof.

Next vnto the Malt flowers, our Malſter ſhall haue a great care in the framing and faſhioning of the Kilne, of which there are ſundry ſorts of moddles, as the ancient forme which was in times paſt vſed of our fore-fathers, being onely made in a ſquare proportion at the top with ſmall ſplints or rafters, ioyned within foure inches one of another going from a maine beame croſſing the mid part of that great ſquare: then is this great ſquare from the top, with good and ſufficient ſtudds to be drawne ſlopewiſe narrower and narrower, till it come to the ground, ſo that the harth or loweſt part thereof may be not aboue a ſixth part to the great ſquare aboue, on which the Malt is laid to be dried, and this harth ſhall be made hollow and deſcending, and not leuell nor aſcending: and theſe Kilns doe not hold any certaine quantity in the vpper ſquare, but may euer be according to the frame of the houſe, ſome being thirty foot each way, ſome twenty, and ſome eighteene. There be other Kilnes which are made after this

this manner open and ſlope, but they are round of proportion, but both theſe kind of Kilnes haue one fault, which is danger of fire; for lying euery way open and apt for the blaze, if the Malſter be any thing negligent either in the keeping of the blaze low and forward, or not ſweeping euery part about the harth any thing that may take fire, or foreſeeing that no ſtrawes which doe belong to the bedding of the Kilne do hang downe, or are looſe, whereby the fire may take hold of them, it is very poſſible that the Kilne may be ſet on fire, to the great loſſe and often vndoing of the owner.

Which to preuent, and that the Malſter may haue better aſſurance and comfort in her labour, there is a Kilne now of generall vſe in this Kingdome, which is called a French Kilne, being framed of a Bricke, Aſhler, or other fire-ſtone, according to the nature of the ſoyle in which *Huſbands* and *Houſwiues* liue: and this French Kilne is euer ſafe and ſecure from fire, and whether the Malſter wake or ſleepe, without extreame wilfull negligence, there can no danger come to the Kilne; and in theſe Kilnes may be burnt any kind of fewell whatſoeuer, and neither ſhall the ſmoke offend or breed ill taſte in the Malt, nor yet diſcolour it, as many times it doth in open Kilnes, where the Malt is as it were, couered all ouer, and euen parboyld in ſmoke: ſo that of all ſorts of Kilnes whatſoeuer, this which is called the French Kilne, is to be preferred and onely embraced. Of the forme or modell whereof, I will not here ſtand to entreat, becauſe they are now ſo generally frequent amongſt vs, that not a Maſon or Carpenter in the whole Kingdome but can build the ſame; ſo that to vſe more words thereof were tediouſneſſe to little purpoſe. Now there is another kind of

The perfect Kilne.

Kilne

Kilne which I haue ſeene (and but in the Weſt-country onely) which for the profitable quaintneſſe thereof, I tooke ſome eſpeciall note of, and that was a Kilne made at the end of a Kitchin Raunge or Chimney, being in ſhape round, and made of Bricke, with a little hollowneſſe narrowed by degrees, into which came from the bottome and midſt of the Kitchin-chimney a hollow tunnell or vault, like the tunnell of a Chimny, and ran directly on the backe-ſide, the hood or backe of the Kitchin chimney; then in the midſt of the Chimney, where the greateſt ſtrength of the fire was made, was a ſquare hole made of about a foote and a halfe enery way, with an Iron thicke plate to draw to and fro, opening and cloſing the hole at pleaſure; and this hole doth open onely into that tunnell which went to the Kilne, ſo that the Malt being once laid, and ſpread vpon the Kilne, draw away the Iron plate, and the ordinary fire with which you dreſſe your meate, and performe other neceſſary buſineſſes, is ſuckt vp into this tunnell, and ſo conuaieth the heate to the Kilne, where it drieth the Malt with as great perfection, as any Kilne I ſaw in my life, and needeth neither attendance or other ceremony more, then once in fiue or ſixe houres to turne the Malt, and take it away when it is dried ſufficiently: for it is here to be noted, that how great or violent ſoeuer the fire be which is in the Chimney, yet by reaſon of the paſſage, and the quantity thereof, it carrieth no more but a moderate heate to the Kilne; and for the ſmoke, it is ſo carried away in other loope-holes which runne from the hollowneſſe betweene the tunnell and the Malt-bed, that no Malt in the world can poſſibly be ſweeter, or more delicately coloured: onely the fault of theſe Kilns are, that they

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are but little in compaſſe, and ſo cannot dry much at a time, as not aboue a quarter or ten ſtrike at the moſt in one drying, and therefore are no more but for a mans owne particular vſe, and for the furniſhing of one ſetled family; but ſo applied, they exceede all the Kilnes that I haue ſeene whatſoeuer.

When our Malſter hath thus perfited the Malt-houſe and Kilne, then next looke to the well bedding of the Kilne, which is diuerſly done according to mens diuers opinions; for ſome vſe one thing, and ſome another, as the neceſſity of the place, or mens particular profits draw them. Bedding of the Kilne.

But firſt to ſhewe you what the bedding of a Kilne is, you ſhall vnderſtand, that it is a thinne couering laid vpon the open rafters, which are next vnto the heate of the fire; being made either ſo thinne or ſo open, that the ſmalleſt heate may paſſe thorow it, and come to the corne: this bed muſt be laid ſo euen and leuell as may be, and not thicker in one place then another, leaſt the Malt drie too faſt where it is thinneſt, and too ſlowly where it is thicke, and ſo in the taſte ſeeme to bee of two ſeuerall dryings: it muſt alſo be made of ſuch ſtuffe, as hauing receiued heate, it will long continue the ſame, and be an aſſiſtant to the fire in drying the corne: it ſhould alſo haue in it no moyſt or dankiſh propertie, leaſt at the firſt receiuing of the fire, it ſend out a ſtinking ſmoke, and ſo taint the malt: nor ſhould it be of any rough or ſharpe ſubſtance, becauſe vpon this bed or bedding is laid the haire-cloth, and on the haire-cloth the malt, ſo that with the turning the malt, and treading vpon the cloth, ſhould the bed be of any ſuch roughneſſe, it would ſoone weare out the haire-cloth, which would be both

loſſe

loſſe and ill *Houſe-wifery*, which is carefully to be eſchewed.

But now for the matter or ſubſtance whereof this bidding ſhould be made, the beſt, neateſt, and ſweeteſt, is cleane long Rye ſtraw, with the eares onely cut off, and the ends layd euen together, not one longer then another, and ſo ſpread vpon the rafter of the Kilne as euen and thinne as may be, and layd as it were ſtraw by ſtraw in a iuſt proportion, where skill and induſtry may make it thin or thicke at pleaſure, as but the thicknesſe of one ſtraw, or of two, three, foure or fiue, as ſhall ſeeme to your iudgement moſt conuenient, and then this, there can be nothing more euen, more drye, ſweete, or open to let in the heate at your pleaſure: and although in the olde open Kilnes it be ſubiect to daunger of fire, by reaſon of the quickeneſſe to receiue the flame, yet in the *French* Kilnes (before mentioned) it is a moſt ſafe bedding, for not any fire can come neere vnto it. There bee others which bed the Kilne with Mat; and it is not much to bee miſliked, if the Mat be made of Rye ſtraw ſowed, and wouen together according to the manner of the Indian Mats, or thoſe vſuall thinne Bent Mats, which you ſhall commonly ſee in the Summer time, ſtanding in Huſbandmens Chimneyes, where one bent or ſtraw is layde by another, and ſo wouen together with a good ſtrong packe-thread: but theſe Mats according to the olde Prouerbe (More coſt more Worſhippe) for they are chargeable to bee bought, and very troubleſome in the making, and in the wearing will not outlaſt one of the former looſe beddings; for if one thread or ſtitch breake, immediately moſt in that rowe will followe: onely it is moſt certaine, that during the time

time it lasteth it is both good, necessary and handsome. But if the matt be made either of Bulrushes, Flaggs, or any other thicke substance (as for the most part they are) then it is not so good a bedding, both because the thicknesse keepeth out the heate, and is long before it can be warmed; as also in that it euer being cold, naturally of it selfe draweth into it a certaine moysture, which with the first heate being expelled in smoke, doth much offend and breed ill taste in the malt. There be others that bed the Kilne with a kinde of matt made of broad thinne splints of wood wrought checker-wise one into another, and it hath the same faults which the thicke matt hath; for it is long in catching the heate, and will euer smoke at the first warming, and that smoke will the malt smell on euer after; for the smoke of wood is euer more sharpe and piercing then any other smoke whatsoeuer. Besides this wooden matt, after it hath once bedded the Kilne, it can hardly afterward bee taken vp or remoued; for by continuall heate, being brought to such an extreame drienesse, if vpon any occasion either to mend the Kilne, or cleanse the Kilne, or doe other necessary labour vnderneath the bedding, you shall take vp the wooden matt, it would presently cracke and fall to pieces, and be no more seruiceable. There be others which bed the Kilne with a bedding made all of wickers, of small wands foulded one into another like a hurdle, or such like wand-worke; but it is made very open, euery wand at least two or three fingers one from another: and this kind of bedding is a very strong kind of bedding, and will last long, and catcheth the heat at the first springing, onely the smoke is offensiue, and the roughnesse without great care vsed, will

will ſoone weare out your haire-cloth: yet in ſuch places where ſtraw is not to be got or ſpared, and that you are compelled onely to vſe wood for your fuell in drying your Malt, I allow this bedding before any other, for it is very good, ſtrong and long laſting: beſides, it may be taken vp & ſet by at pleaſure, ſo that you may ſweepe and clenſe your Kilne as oft as occaſion ſhall ſerue, and in the neate and fine keeping of the Kilne, doth conſiſt much of the *Houſ-wiues* Art; for to be choakt either with duſt, durt, ſoote or aſhes, as it ſhewes ſluttiſhneſſe and ſloth, the onely great imputations hanging ouer a *Houſwife*, ſo they likewiſe hinder the labour, and make the malt dry a great deale worſe, and more vnkindly.

Of fuell for the drying of Malt.

Next the bedding of the Kilne, our Malſter by all meanes muſt haue an eſpeciall care with what fuell ſhee dryeth the Malt; for commonly according to that it euer receiueth and keepeth the taſte, if by ſome eſpeciall Art in the Kilne that anoyance be not taken away. To ſpeake then of Fewels in generall, they are of diuers kinds according to the natures of ſoyles, and the accommodation of places in which men liue; yet the bed and moſt principall fewell for the Kilnes (both for ſweetneſſe, gentle heate, and perfect drying) is either good Wheate-ſtraw, Rye-ſtraw, Barley-ſtraw, or Oaten-ſtraw; and of theſe the Wheat-ſtraw is the beſt, becauſe it is moſt ſubſtantiall, longeſt laſting, makes the ſharpeſt fire, and yeelds the leaſt flame: the next is Rie-ſtraw, then Oaten-ſtraw, and laſt Barley-ſtraw, which by reaſon it is ſhorteſt, lighteſt, leaſt laſting, and giueth more blaze then heate, it is laſt of theſe white ſtraws to be choſen; & where any of theſe faile, or are ſcarce, you may take the ſtubble or after-crop

of them, when the vpper part is ſhorne away; which being well dried and houſed, is as good as any of the reſt already ſpoken of, and leſſe chargeable, becauſe it is not fit for any better purpoſe as to make fodder, meanure, or ſuch like, of more then ordinary thatching, and ſo fitteſt for this purpoſe. Next to theſe white ſtrawes, your long Fenne-ruſhes, being very exceedingly well withered and dried, and all the ſappie moyſture gotten out of them, and ſo either ſafely houſed or ſtacked, are the beſt fuell: for they make a very ſubſtantiall fire, and much laſting, neither are apt to much blazing, nor the ſmoke ſo ſharpe or violent but may very well be endured: where all theſe are wanting, you may take the ſtraw of Peaſe, Tetches, Lupins, or Tares, any of which will ſerue, yet the ſmoke is apt to taint, and the fire without preuention drieth too ſuddenly and ſwiftly. Next to theſe is cleane Beane-ſtraw, or ſtraw mixt of Beanes and Peaſe together; but this muſt be handled with great diſcretion, for the ſubſtance containeth ſo much heate, that it will rather burne then drie, if it be not moderated, and the ſmoke is alſo much offenſiue. Next to this beane-ſtraw is your Furrs, Gorſe, Whinnes, or ſmall Bruſh-wood, which differeth not much from Beane-ſtraw; onely the ſmoke is much ſharper, and tainteth the Malt with a much ſtronger ſauour. To theſe I may adde Braken or Braks, Ling, Heath, or Brome, all which may ſerue in time of neceſſity, but each one of them haue this fault, that they adde to the Malt an ill taſte or ſauour. After theſe I place Wood of all ſorts, for each is alike noyſome, and if the ſmoke which commeth from it touch the Malt, the infection cannot be recouered; from whence amongſt the beſt *Huſbands* haue ſprung this opinion, that

that when at any time drinke is ill tasted, they say straight, it was made of Wood-dried Malt. And thus you see the generality of fuels, their vertues, faults, and how they are to be imployed. Now for Coale of all kinds, Turfe or Peate, they are not by any meanes to be vsed vnder Kilnes, except where the furnaces are so subtilly made, that the smoke is conuaied a quite contrary way, and neuer commeth neere the Malt; in that case it skilleth not what fuell you vse, so it be durable and cheape it is fit for the purpose, onely great regard must be had to the gentlenesse of the fire; for as the old Prouerb is (Soft fire makes sweet Malt) so too rash and hasty a fire scorcheth and burneth it, which is called amongst Malsters Firefanged; and such Malt is good for little or no purpose: therefore to keepe a temperate and true fire, is the onely Art of a most skilfull Maltster.

When the Kilne is thus made and furnished of all necessaries duely belonging to the same, our malsters next care shall bee to the fashioning and making of the Garnets, Hutches, or Holds in which both the malt after it is dried, and the Barley before it be steeped, is to be kept and preserued; and these Garners or Safes for Corne are made of diuers fashions, and diuers matters, as some of Boords, some of Bricks, some of Stone, some of Lime and Haire, and some of mud, Clay or Loame: but all of these haue their seuerall faults; for Wood of all kinds breedeth Weeuell and Wormes which destroy the Graine, and is indeed much too hot: for although malt would euer be kept passing drie, yet neuer so little ouer-plus of heate withers it, and takes away the vertue; for as moysture rots and corrupts it, so heate takes away and decayeth

decayeth the ſubſtance. Bricke, becauſe it is layde with Lime, is altogether vnwholeſome, for the Lime being apt at change of weather to ſweate, moyſteneth the graine, and ſo tainteth it, and in the drieſt ſeaſons with the ſharpe hot taſte, doth fully as much offend it: thoſe which are made of Stone are much more noyſome, both in reſpect of the reaſons before rehearſed, as alſo in that all Stone of it ſelfe will ſweate, and ſo more and more corrupteth the graine which is harboured in it. Lime and haire being of the ſame nature, carrieth the ſame offences, and is in the like ſort to be eſchewed. Now for mud, clay, or loame, in as much as they muſt neceſſarily be mixed with wood, becauſe otherwiſe of themſelues they cannot knit or binde together, and beſides, that the clay or loame muſt be mixt either with chopt hey, chopt ſtraw, or chopt Litter, they are as great breeders of Wormes and vermine as wood is, nor are they defences againſt mice, but eaſie to be wrought through, and ſo very vnprofitable for any *Husband* or *Houſe-wife* to vſe. Beſides, they are much too hot, and beeing either in a cloſe houſe neere the kilne, or the backe or face of any other Chimney, they drye the corne too ſore, and make it dwindle and wither, ſo that it neither filleth the buſhell, nor inricheth the liquor, but turnes to loſſe euery way. The beſt Garner then that can bee made both for ſafety and profite, is to be made either of broken tile-ſhread, or broken brickes, cunningly and euen layd, & bound together with Plaſter of Paris, or our ordinary *Engliſh* Plaſter, or burnt *Alablaſter*, and then couered all ouer both within and without, in the bottome and on euery ſide, at leaſt three fingers thicke with the ſame Plaſter, ſo as no bricke or tyle-ſhread may by

any meanes bee ſeene, or come neere to touch the Corne; and theſe Garners you may make as bigge, or as little as you pleaſe, according to the frame of your houſe, or places of moſt conuenience for the purpoſe, which indeed would euer be as neere the Kilne as may be, that the ayre of the fire in the dayes of drying may come vnto the ſame, or elſe neere the backes or ſides of Chemneyes, where the ayre thereof may correct the extreame coldneſſe of the plaſter, which of all things that are bred in the earth, is the coldeſt thing that may be, and yet moſt dry, and not apt to ſweat, or take moyſture but by ſome violent extremity, neither will any worme or vermine come neere it, becauſe the great coldneſſe thereof is a mortall enemy to their natures, and ſo the ſafeſt and longeſt theſe Garners of plaſter keepe all kinde of Graine and Pulſe in the beſt perfection.

The making of ceſternes.

After theſe Garners, Hutches, or large Keeues for Corne are perfitted and made, and fitly adioyned to the Kilne, the next thing that our Maultſter hath to looke vnto, is the framing of the Fatts or Ceſternes, in which the Corne is to be ſteeped, and they are of two ſorts, that is, either of Coopers worke, being great Fatts of wood, or elſe of Maſons worke, beeing Ceſternes made of ſtone; but the Ceſterne of ſtone is much the better, for beſides that theſe great Fatts of Wood are very chargeable and coſtly (as a Fatte to containe foure quarters of graine, which is but two and thirty buſhels, cannot be affoorded vnder twenty ſhillings) ſo likewiſe they are very caſuall and apt to miſchaunce and ſpilling; for and beſides their ordinary wearing, if in the heate of Summer they be neuer

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ſo little neglected without water, and ſuffered to be ouer-drye, it is tenne to one but in the Winter they will bee ready to fal in peeces; and if they bee kept moyſt, yet if the water bee not oft ſhifted and preſerued ſweete, the Fatte will ſoone taynt, and beeing once growne faultie, it is not onely irrecouerable, but alſo whatſoeuer commeth to be ſteeped in it after, will be ſure to haue the ſame ſauour, beſides the wearing and breaking of Garthes and Plugges, the binding, clenſing, ſweetning, and a whole world of other troubles and charges doe ſo dayly attend them, that the benefite is a great deale ſhort of the incumbrance; whereas the Stone Ceſterne is euer ready and vſefull, without any vexation at all, and being once well and ſufficiently made, will not neede trouble or reparation (more then ordinary waſhing) ſcarce in a hundred yeares.

Now the beſt way of making theſe Mault-ceſternes, is to make the bottomes and ſides of good tyle-ſhreads, fixed together with the beſt Lime and Sand, and the bottome ſhall bee raiſed at leaſt a foote and a halfe higher then the ground, and at one corner in the bottome a fine artificiall round hole muſt be made, which being outwardly ſtopt, the maltſter may through it drayne the Ceſterne drye when ſhee pleaſeth, and the bottome muſt bee ſo artificially leueld and contriued, that the water may haue a true deſcent to that hole, and not any remaine behind when it is opened.

Now when the modell is thus made of tile-ſhread, which you may do great or little at your pleaſure, then with Lime, Haire, and Beaſts-blood mixed together, you ſhall couer the bottome at leaſt two inches thicke, laying it leuell and plaine, as is before ſhewed: which

done, you ſhall alſo couer all the ſides and toppe, both within and without with the ſame matter, at leaſt a good fingers thickneſſe, and the maine Wall of the whole ceſterne ſhall bee a full foote in thickneſſe, as well for ſtrength and dureableſſe, as other priuate reaſons for the holding the graine and water, whoſe poyſe and weight might otherwiſe indanger a weaker ſubſtance. And thus much concerning the Malt-houſe, and thoſe ſeuerall accommodations which doe belong vnto the ſame.

The manner how to make Malt.

I will now ſpeake a little in generall as touching the Art, skill and knowledge of malt making, which I haue referred to the concluſion of this Chapter, becauſe whoſoeuer is ignorant in any of the things before ſpoken of, cannot by any meanes euer attaine to the perfection of moſt true and moſt thrifty malt making: To beginne then with this Art of making, or (as ſome tearme it) melting of malt, you ſhall firſt (hauing proportioned the quantity you meane to ſteepe, which ſhould euer be anſwerable to the continent of your Ceſterne, and your Ceſterne to your flowres) let it either runne downe from your vpper Garner into the Ceſterne, or otherwiſe be carried into your Ceſterne, as you ſhall pleaſe, or your occaſions deſire, and this Barley would by all meanes be very cleane, and neatly dreſt; then when your Ceſterne is filled, you ſhall from your Pumpe or Well conuey the water into the ceſterne, till all the corne be drencht, and that the water floate aboue it: if there be any corne that will not ſinke, you ſhall with your hand ſtirre it about, and wet it, and ſo let it reſt and couer the ceſterne, and thus for the ſpace of three nights you ſhall let the Corne ſteepe in the water. After the third night is expired, the

the next morning you ſhall come to the Ceſterne, and plucke out the plug or bung-ſticke which ſtoppeth the hole in the bottome of the Ceſterne, and ſo draine the water cleane from the Corne, and this water you ſhall by all meanes ſaue, for much light Corne and others will come foorth with this draine-water, which is very good Swines meate, and may not bee loſt by any good *Houſe-wife*. Then hauing drained it, you ſhall let the ceſterne drop all that day, and in the euening with your ſhouell you ſhall empty the corne from the ceſterne vnto the malt-flowre, and when all is out, and the ceſterne cleanſed, you ſhall lay all the wet corne on a great heape round or long, and flat on the toppe; and the thickneſſe of this heape ſhall be anſwerable to the ſeaſon of the yeare; for if the weather be extreame cold, then the heape ſhall be made very thicke, as three or foure foote, or more, according to the quantity of the graine: but if the weather be temperate and warme, then ſhall the heape be made thinner, as two foote, a foote and a halfe, or one foote, according to the quantity of the graine. And this heape is called of Malſters a Couch or Bed of raw Malt.

In this couch you ſhall let the corne lye three nights more without ſtirring, and after the expiration of the three nights, you ſhall looke vpon it, and if you find that it beginneth but to ſproute (which is called comming of malt) though it be neuer ſo little, as but the very white ende of the ſproute peeping out (ſo it bee in the outward part of the heape or couch) you ſhall then breake open the couch, and in the middeſt (where the Corne laye neereſt) you ſhall finde the ſproute or Come of a greater largeneſſe; then with your ſhouell you ſhall turne all the outward part of the couch in-

w rd, and the inward outward, and make it at leaſt three o foure times as bigge as it was at the firſt, and ſo let it lye all that day and night, and the next day you ſhall with your ſhouell turne the whole heape ouer againe, increaſing the largeneſſe, and making it of one indifferent thickneſſe ouer all the flowre; that is to ſay, not aboue a handfull thicke at the moſt, not failing after for the ſpace of foureteene dayes, which doth make vp full in all three weekes, to turne it all ouer twice or thrice a day according to the ſeaſon of the weather, for if it be warme, the mault muſt be turned oftner; if coole, then it may lye looſer- thicker and longer together; and when the three weekes is fully accompliſht, then you ſhall (hauing bedded your Kilne, and ſpread a cleane hayre-cloth thereon) lay the malte as thinne as may be (as about three fingers thickneſſe) vpon the haire-cloth, and ſo drye it with a gentle and ſoft fire, euer and anon turning the mault (as it drieth on the Kilne) ouer and ouer with your hand, till you finde it ſufficiently well dryed, which you ſhall know both by the taſte when you bite it in your mouth, and alſo by the falling off of the Come or ſprout, when it is throughly dryed. Now aſſoone as you ſee the come beginne to ſhed, you ſhall in the turning of the mault rubbe it well betweene your hands, and ſcower it, to make the come fall away, then finding it all ſufficiently dried, firſt put out your fire, then let the malt coole vpon the Kilne for foure or fiue howres, and after raiſing vp the foure corners of the haire-cloth, and gathering the mault together on a heape, empty it with the come and all into your garners, and there let it lye (if you haue not preſent occaſion to vſe it) for a moneth or two or three to ripen, but no longer, for as the come

The drying of Mault.

come or duſt of the Kilne, for ſuch a ſpace melloweth and ripeneth the malt, making it better both for ſale or expence, ſo to lye too long in it doth ingender Weeuell, Wormes, and vermine which doe deſtroye the graine.

The dreſſing of Malt.

Now for the dreſſing and cleenſing of malt at ſuch time as it is either to be ſpent in the houſe, or ſolde in the market, you ſhall firſt winnow it with a good wind either from the ayre, or from the fan; and before the winnowing you ſhall rubbe it exceeding well betweene your hands to get the come or ſproutings cleane away: for the beauty and goodneſſe of malt is when it is moſt ſmug, cleane, bright, and likeſt to Barly in the viewe, for then there is leaſt waſt and greateſt profit: for come and duſt drinketh vp the liquor, and giues an ill taſte to the drinke. After it is well rubd and winnowed, you ſhall then ree it ouer in a fine ſiue, and if any of the malt be vncleanſed, then rub it againe in the ſiue till it be pure, and the rubbings will ariſe on the top of the ſiue, which you may caſt off at pleaſure, and both thoſe rubbings from the ſiue and the chaffe and duſt which commeth from the winnowings ſhould be ſafe kept, for they are very good Swines meate, and feede well mixt either with whay or ſwillings: and thus after the malt is reed, you ſhall either ſacke it vp for eſpeciall vſe, or put it into a well cleanſed Garner, where it may lye till there be occaſion for expence.

Obſeruations in the making of Malt.

Now there bee certaine obſeruations in the making of Malt, which I may by no meanes omit: for though diuerſe opinions doe diuerſly argue them, yet as neere as I can, I will reconcile them to that truth, which is moſt conſonant to reaſon, and the rule of honeſty and equalitie.

First, there is a difference in mens opinions as touching the constant time for the mellowing and making of the Malt; that is, from the first steeping to the time of drying; for some will allow both Fat and Flowre hardly a fortnight, some a fortnight and two or three dayes, and doe giue this reason; first, they say it makes the Corne looke whiter and brighter, and doth not get so much the sulling and foulenesse of the flower, as that which lieth three weekes, which makes it a great deale more beautifull and so more sallable: next, it doth not come or shoote out so much sprout, as that which lieth a longer time, and so preserueth more heart in the graine, makes it bould and fuller, and so consequently more full of substance, and able to make more of a little, then the other much of more; and these reasons are good in shew, but not in substantiall truth for (although I confesse that Corne which lieth least time of the flowre must be the whitest and brightest) yet that which wanteth any of the due time, can neither ripen, mellow, nor come to true perfection, and lesse then three weekes cannot ripen barley: for looke what time it hath to swell and sprout, it must haue full that time to flourish, and as much time to decay: now in lesse then a weeke it cannot doe the first, and so in a weeke the second, and in another weeke the third; so that in lesse then three weekes a man cannot make perfect Malt. Againe, I confesse, that Malt which hath the least Corne, must haue the greatest kernell, and so be most substantiall; yet the Malt which putteth not out his full sprout, but hath that moysture (with too much haste) driuen in which should be expelled, can neuer be Malt of any long lasting, or profitable for indurance, because it hath so much moist substance

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as doth make it both apt to corrupt and breed wormes in moſt great abundance: it is moſt true, that this haſtie made Malt is faireſt to the eie, and will ſooneſt be vented in the Market; and being ſpent aſſoone as it is bought, little or no loſſe is to be perceiued, yet if it be kept three or foure moneths, or longer (vnleſſe the place where it is kept be like a Hot-houſe) it will ſo danke and giue againe, that it will be little better then raw Malt, and ſo good for no ſeruice without a ſecond drying: beſides, Malt that is not ſuffred to ſprout to the full kindly, but is ſtopt as ſoone as it begins to peepe, much of that Malt cannot come at all, for the moyſteſt graines doe ſprout firſt, and the hardeſt are longer in breaking the huſk; now if you ſtop the graine on the firſt ſprouts, and not giue all leaſure to come one after another, you ſhall haue halfe Malt and halfe Barley, and that is good for nothing but Hens and Hogs trough. So that to conclude, leſſe then three weekes you cannot haue to make good and perfect Malt.

Next there is a difference in the turning of the malt, for ſome (and thoſe be the moſt men Malſters whatſoeuer) turne all their malt with the ſhouell, and ſay it is moſt eaſie, moſt ſpeedy, and diſpatcheth more in an houre, then any other way doth in three; and it is very true, yet it ſcattereth much, leaueth much behind vnturn'd, and commonly that which was vndermoſt, it leaueth vndermoſt ſtill, and ſo by ſome comming too much, and others not comming at all, the malt is oft much imperfect, and the old ſaying made good, that too much haſte, maketh waſte. Now there are others (and they are for the moſt part woemen Malſters) which turne all with the hand, and that is the beſt, ſafeſt, and moſt certaine way; for there is not a graine which the hand

hand doth not remoue and turne ouer and ouer, and laies euery feuerall heape or row of ſuch an euen and iuſt thickneſſe, that the Malt both equally commeth, and equally ſeaſoneth together without defect or alteration: and though he that hath much Malt to make, will be willing to hearken to the ſwifteſt courſe in making, yet he that will make the beſt Malt, muſt take ſuch conuenient leaſure, and imploy that labour which commeth neereſt to perfection.

Then there is another eſpeciall care to be had in the coming or ſprouting of Malt, which is, that as it muſt not come too little, ſo it muſt not by any meanes come too much, for that is the groſſeſt abuſe that may be: and that which we call comed or ſprouted too much is, when either by negligence for want of looking to the couch, and not opening of it, or for want of turning when the malt is ſpread on the flowre it come or ſprout at both ends, which *Huſbands* call Akerſpyerd; ſuch corne by reaſon the whole heart or ſubſtance is driuen out of it, can be good for no purpoſe but the Swine-trough, and therefore you muſt haue an eſpeciall care both to the well tending of the couch, and the turning the malt on the flowre, and be ſure (as neere as you can by the ordering of the couch, and happing the hardeſt graine inward and warmeſt) to make it all Come very indifferently together. Now if it ſo fall out that you buy your Barley, and happen to light on mixt graine, ſome being old Corne, ſome new Corne, ſome of the heart of the ſtacke, and ſome of the ſtadle, which is an ordinary deceit with *Huſbandmen* in the Market, then you may be well aſſured, that this graine can neuer Come or ſprout equally together; for the new Corne will ſprout before the old, and the ſtaddle before that

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in the heart of the ſtacke, by reaſon the one exceedeth the other in moyſtneſſe: therefore in this caſe you ſhall marke well which commeth firſt, which will be ſtill in the heart of the Couch, and with your hand gather it by it ſelfe into a ſeperate place, and then heape the other together againe; and thus as it cometh and ſprouteth, ſo gather it from the heape with your hand, and ſpread it on the flowre, and keepe the other ſtill in a thicke heape till all be ſprouted. Now laſtly obſerue, that if your Malt be hard to ſprout or Come, and that the fault conſiſt more in the bitter coldnes of the ſeaſon, then any defect of the corne, that then (beſides the thicke and cloſe making of the heape or couch) you faile not to couer it ouer with ſome thicke woollen clothes, as courſe Couerlids, or ſuch like ſtuffe, the warmth whereof will make it Come preſently: which once perceiued, then forthwith vncloth it, and order it as aforeſaid in all points. And thus much for the Art, order, skill and cunning belonging to the Malt-making.

Now as touching the making of Oates into Malt, which is a thing of generall vſe in many parts of this Kingdome where Barley is ſcarſe, as in *Cheſheire*, *Lancaſheire*, much of *Darbiſheire*, *Deuonſheire*, *Cornwall*, and the like, the Art and skill is all one with that of Barley, nor is there any variation or change of worke, but one and the ſame order ſtill to be obſerued, onely by reaſon that Oates are more ſwift in ſprouting, and apter to clutter, ball and hang together by the length of the ſprout then Barley is, therefore you muſt not faile but turne them oftner then Barley, and in the turning be carefull to turne all, and not leaue any vnmoued. Laſtly, they will need leſſe of the flowre then Barley will, for in a full fortnight, or a fortnight and two or three

Of Oate-Malt.

three dayes you may make very good and perfect Oate-malt. But because I haue a great deale more to speake particularly of Oates in the next Chapter, I will here conclude this, and aduise euery skilfull *House-wife* to ioyne with mine obseruations her owne tryed experience, and no doubt but shee shall find both profit and satisfaction.

Chap. 6.

Of the excellency of Oates, and the many singular vertues and vses of them in a family.

OAts although they are of all manner of graine the cheapest, because of their generality being a graine of that goodnesse and hardnesse, that it will grow in any soyle whatsoeuer, be it neuer so rich, or neuer so poore, as if Nature had made it the onely louing companion and true friend to mankind; yet is it a graine of that singularity for the multiplicity of vertues, and necessary vses for the sustenance and support of the Family, that not any other graine is to be compared with it, for if any other haue equall vertue, yet it hath not equall value, and if equall value, then it wants many degrees of equall vertue; so that ioyning vertue and value together, no *Husband, House wife*, or House-keeper whatsoeuer, hath so true and worthy a friend, as his Oats are.

To speake then first of the vertues of Oates, as they accrew to Cattell and creatures without doore, and first to begin with the Horse, there is not any food whatsoeuer that is so good, wholesome, and agreeable with the nature of a Horse, as Oates are, being a Prouendar in which he taketh such delight, that with it he feedeth,

feedeth, traualleth, and doth any violent labour whatsoeuer with more courage and comfort, then with any other food that can be inuented, as all men know, that haue either vse of it, or Horses: neither doth the Horse euer take surfeit of Oates, (if they be sweet and dry) for albe he may well be glutted or stalled vpon them (with indiscreet feeding) and so refuse them for a little time, yet he neuer surfeiteth, or any present sickneſſe follow after; whereas no other graine but glut a Horse therewith, and instantly sickneſſe will follow, which shewes surfeit, and the danger is oft incurable: for wee read in *Italy*, at the siege of *Naples*, of many hundred Horses that died on the surfeit of wheat; at *Rome* also dyed many hundred Horses of the plague, which by due proofe was found to proceed from a surfeit taken of peason and fetches; and so I could runne ouer all other graines, but it is needleſſe, and farre from the purpose I haue to handle: suffice it, Oates for Horses are the beſt of all foods whatsoeuer, whether they be but onely cleane threſht from the straw, and so dryed, or conuerted to Oatmeale, and so ground and made into Bread, Oates boyl'd and giuen to a Horse whilst they are coole and sweete, are an excellent foode for any Horse in the time of diseaſe, pouerty, or sickneſſe, for they scower and fat exceedingly.

In the same nature that Oates are for Horses, so are they for the Asse, Mule, Camell, or any other Beast of burthen.

If you will feede either Oxe, Bull, Cow, or any Neate, whatsoeuer to an extraordinary height of fatneſſe, there is no foode doth it so soone as Oates doth, whether you giue them in the straw, or cleane threſht from the sheafe, and well winnowed; but the winnowed Oate

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is the beſt, for by them I haue ſeen an Oxe fed to twenty pound, to twenty foure pound, and thirty pounds, which is a moſt vnreaſonable reckoning for any beaſt, onely ſame and the tallow hath beene precious.

Sheepe or Goates may likewiſe be fed with Oates, to as great price and profit as with Peaſe, and Swine are fed with Oates, either in raw Malt, or otherwiſe, to as great thickneſſe as with any graine whatſoeuer; onely they muſt haue a few Peaſe after the Oates to harden the fat, or elſe it will waſte, and conſume in boyling. Now for holding Swine, which are onely to be preſerued in good fleſh, nothing is better then a thin mange made of ground Oates, whey, Butter-milke, or other ordinary waſhe, or ſwillings, which either the Dairy, or Kitchin affoordeth; nor is there any more ſouereigne or excellent meate for Swine in the time of ſickneſſe, then a mange made of ground Oates and ſweet Whey, warmed luke-warme on the fire, and mixt with the powder of Raddle, or red Oaker. Nay if you will goe to the matter of pleaſure, there is not any meate ſo excellent for the feeding, and wholeſome keeping of a Kenell of hounds, as the Mangge made of ground Oats and ſcalding water, or of beefe-broth, or any other broth, in which fleſh hath beene ſodden; if it be for the feeding, ſtrengthning and comforting of Grey-hounds, Spaniels, or any other ſort of tenderer Doggs, there is no meate better then ſheepes-heads, haire and all, or other intralls of ſheepe chopt and well ſodden, with good ſtore of Oate-meale.

Now for all manner of Poultry, as Cocks, Capons, Hens, Chickens of great ſize, Turkyes, Geeſe, Ducks, Swannes and ſuch like, there is no food feedeth them better then Oates, and if it be the young breede of any

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of those kinds, euen from the first hatching or disclosing, till they be able to shift for them selues, there is no food better whatsoeuer then Oate-meale greets, or fine Oate-meale, either simple of it selfe, or else mixt with milke, drinke, or else new made Vrine.

Thus much touching the vertues and quality of Oates or Oate-meale, as they are seruiceable for the vse of Cattle and Poultry. Now for the most necessary vse thereof for man, and the geneall support of the family, there is no graine in our knowledge answerable vnto it; first for the simple Oate it selfe (excepting some particular physicke helpes, as frying them with sweet butter, and putting them in a bag, and very hot applied to the belly or stomacke to auoyde collicke or windinesse, and such like experiments) the most especiall vse which is made of them is for Malt to make Beere or Ale of, which it doth exceeding well, and maintaineth many Townes and Countries; but the Oatmeale which is drawne from them, being the heart and kernell of the Oate, is a thing of much rarer price and estimation; for to speake troth, it is like Salt of such a generall vse, that without it hardly can any Family be maintained: therefore I thinke it not much amisse to speake a word or two touching the making of Oate-meale, you shall vnderstand then, that to make good and perfect Oat-meale, you shall first dry your Oates exceeding well, and then put them on the Mill, which may either be Water-mill, Wind-mill, or Horse-mill (but the horse-mill is best) and no more but crush or hull them; that is, to carry the stones so large, that they may no more but crush the husk from the Kernell: then you shall winnow the hulls from the kirnells either with the wind or a Fanne, and finding them of an indifferent

Vertue of Oates for man.

Making of Oate-meale.

cleanneſſe

cleanneſſe (for it is impoſſible to huſl them all cleane at the firſt) you ſhall then put them on againe, and making the Mill goe a little cloſer, runne them through the Mill againe, and then winnow them ouer againe, and ſuch greetes or kirnels as are cleane huld and well cut you may lay by, and the reſt you ſhall run through the mill againe the third time, and ſo winnow them againe, in which time all will bee perfit, and the greetes or full kirnels will ſeparate from the ſmaller Oate-meale; for you ſhall vnderſtand, that at this firſt making of Oate meale, you ſhall euer haue two ſorts of Oate-meales; that is, the full whole greete or kirnell, and the ſmall duſt Oate-meale: as for the courſe hulles or chaffe that commeth from them, that alſo is worthy ſauing, for it is an excellent good Horſe-prouender for any plow or labouring Horſes, beeing mixt with either Beanes, Peaſe, or any other Pulſe whatſoeuer.

The vertues of Oate-meale.

Now for the vſe and vertues of theſe two ſeuerall kinds of Oate-meales in maintaining the Family, they are ſo many (according to the many cuſtomes of many Nations) that it is almoſt impoſſible to recken all; yet (as neere as I can) I will impart my Knowledge, and what I haue tane from relation: Firſt, for the ſmall duſt or meale Oate-meale, it is that with which all pottage is made and thickned, whether they be meate-pottage, milke-pottage, or any thicke or elſe thinne grewell whatſoeuer, of whoſe goodneſſe and wholeſomeneſſe it is needleſſe to ſpeake, in that it is frequent with euery expetience: alſo with this ſmall meale oate-meale is made in diuerſe Countries ſix ſeuerall kinds of very good and wholſome bread, euery one finer then other, as your Anacks, Ianacks, and ſuch like. Alſo there

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is made of it both thicke and thin Oaten-cakes, which are very pleaſant in taſte, and much eſteemed: but if it be mixed with fine wheate-meale, then it maketh a moſt delicate and dainty oate-cake, either thicke or thin, ſuch as no Prince in the world but may haue them ſerued to his table; alſo this ſmall oat-meale mixed with blood, and the Liuer of either Sheepe, Calfe or Swine, maketh that pudding which is called the Haggas or Haggus, of whoſe goodneſſe it is in vaine to boaſt, becauſe there is hardly to be found a man that doth not affect them. And laſtly, from this ſmall oat-meale by oft ſteeping it in water and clenſing it; and then boyling it to a thicke and ſtiffe ielly, is made that excellent diſh of meate, which is ſo eſteemed of in the weſt parts of this Kingdome, which they call *Waſh-brew*, and in *Cheſheire* and *Lancaſheire* they call it *Flamery* or *Flumery*, the wholeſomneſſe and rare goodneſſe, nay, the very Phyſicke helpes thereof, being ſuch and ſo many, that I my ſelfe haue heard a very reuerend and worthily renowned Phyſition ſpeake more in the commendations of that meate, then of any other foode whatſoeuer: and certaine it is, that you ſhall not heare of any that euer did ſurfeite of this *Waſh-brew* or *Flammery*; and yet I haue ſeene them of very dainety and ſickely ſtomackes which haue eaten great quantities thereof, beyond the proportion of ordinary meates. Now for the manner of eating this meate, it is of diuerſe diuerſly vſed; for ſome eate it with hony, which is reputed the beſt ſauce; ſome with Wine, either Sacke, Claret or White; ſome with ſtrong Beere or ſtrong Ale, and ſome with milke, as your ability, or the accommodations of the place will adminiſter. Now there is deriued from this *Waſh-brew* another courſer meate,

which is as it were the dregges, or groſſer ſubſtance of the *Waſh-brew*, which is called *Gird brew*, which is a well filling and ſufficient meate, fit for ſeruants and men of labour; of the commendations whereof, I will not much ſtand, in that it is a meate of harder diſieſtion, and fit indeed but for ſtrong able ſtomackes, and ſuch whoſe toyle and much ſweate both liberally ſpendeth euill humors, and alſo preſerueth men from the offence of fulneſſe and ſurfeits.

Now for the bigger kind of Oate meale, which is called Greets, or Corne Oate meale, it is of no leſſe vſe then the former, nor are there fewer meates compounded thereof: for firſt, of theſe greets are made all ſorts of puddings, or potts (as the Weſt-countrey tearmes them) whether they be blacke, as thoſe which are made of the blood of Beaſts, Swine, Sheepe, Geeſe, Red or Fallow Deere, or the like, mixt with whole greetes, ſuet and wholeſome hearbes: or elſe white, as when the greetes are mixt with good creame, egges, bread-crummes, ſuet, currants, and other wholeſome ſpices. Alſo of theſe greets are made the good Friday pudding, which is mixt with egges, milke, ſuet, peniroyall, and boyld firſt in a linnen bagge, and then ſtript and buttered with ſweet butter. Againe, if you roſt a gooſe, and ſtop her belly with whole greets beaten together with egges, and after mixt with the grany, there cannot be a better or more pleaſanter ſauce: nay, if a man be at ſea in any long traueil, he cannot eate a more wholeſome and pleaſant meate then theſe whole greets boyld in water till they burſt, and then mixt with butter; and ſo eaten with ſpoones; which although ſeamen call ſimply by the name of Loblolly, yet there is not any meate how ſignificant ſoeuer the name be, that

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is more toothſome or wholeſome. And to conclude, there is no way or purpoſe whatſoeuer to which a man can vſe or imploy Rice: but with the ſame ſeaſoning and order you may imploy the whole greetes of Oate-meale, and haue full as good and wholeſome meate, and as well taſted; ſo that I may well knit vp this chapter with this approbation of Oate meale, that the little charge and great benefite conſidered, it is the very Crowne of the *Houſe-wiues* garland, and doth more grace her table and her knowledge, then all graines whatſoeuer; neither indeed can any Family or Houſehold be well and thriftily maintained, where this is either ſcant or wanting. And thus much touching the nature, worth, vertues, and great neceſſity of Oates and Oate-meale.

Chap. 8.

Of the Office of the Brew-houſe, and the Bake-houſe, and the neceſſary things belonging to the ſame.

When our *Engliſh Houſe-wife* knowes how to preſerue health by wholeſome Phyſicke, to nouriſh by good meate, and to cloath the body with warme garments, ſhee muſt not then by any meanes bee ignorant in the prouiſion of Bread and Drinke; ſhee muſt knowe both the proportions and compoſitions of the ſame. And for as much as drinke is in euery houſe more generally ſpent then bread, being indeede (but how well I know not) made the very ſubſtance of all entertainement; I will firſt beginne with it, and therefore you ſhall knowe that generally our Kingdome hath out two kindes of drinkes, that is to ſay, Beere and Ale, Diuerſities of Drinkes.

Ale, but particularly foure, as Beere, Ale, Perry and Cider; and to theſe we may adde two more, Meede and Metheglin, two compound drinkes of hony and hearbs, which in the places where they are made, as in *Wales* and the marches, are reckoned for exceeding wholeſome and cordiall.

Strong Beere.

To ſpeake then of Beere, although there be diuers kinds of taſtes and ſtrength thereof, according to the allowance of *Malt*, *Hoppes*, and age giuen vnto the ſame; yet indeed there can be truly ſayd to be but two kinds thereof; namely, ordinary beere and March beere, all other beeres being deriued from them.

Of ordinary Beere.

Touching ordinary Beere, which is that where with either Nobleman, Gentleman, Yeoman, or Husbandman ſhall maintaine his family the whole yeere; it is meete firſt that our *Engliſh Houſwife* reſpect the proportion or allowance of Malt due to the ſame, which amongſt the beſt *Huſbands* is thought moſt conuenient, and it is held, that to draw from one quarter of good Malt three Hogſheads of beere, is the beſt ordinary proportion that can be allowed, and hauing age and good caske to lie in, it will be ſtrong enough for any good mans drinking.

Of brewing ordinary Beere.

Now for the brewing of ordinary Beere, your Malt being well ground and put in your Maſh-fat, and your liquor in your leade ready to boyle, you ſhall then by little and little with ſcoopes or pailes put the boyling liquor to the Malt, and then ſtirre it euen to the bottome exceedingly well together (which is called the maſhing of the Malt) then the liquor ſwimming in the top couer all ouer with more Malt, and ſo let it ſtand an houre and more in the maſh-fat, during which ſpace you may if you pleaſe heate more liquor in

in your lead for your ſecond or ſmall drinke; this done, plucke vp your maſhing ſtroame, and let the firſt liquor runne gently from the malt, either in a cleane trough or other veſſells prepared for the purpoſe, and then ſtopping the maſh-fat againe, put the ſecond liquor to the malt, and ſtirre it well together; then your leade being emptied put your firſt liquor or wort therein, and then to euery quarter of malt put a pound and a halfe of the beſt hopps you can get; and boyle them an houre together, till taking vp a diſhfull thereof you ſee the hopps ſhrinke into the bottome of the diſh; this done, put the wort through a ſtraight ſiue which may draine the hopps from it into your cooler, which ſtanding ouer the Guil-fat, you ſhall in the bottome thereof ſet a great bowle with your barme, and ſome of the firſt wort (before the hops come into it mixt together) that it may riſe therein, and then let your wort drop or run gently into the diſh with the barme which ſtands in the Guil-fat, & this you ſhall do the firſt day of your brewing, letting your cooler drop all the night following, and ſome part of the next morning, and as it droppeth if you finde that a blacke skumme or mother riſeth vpon the barme, you ſhall with your hand take it off and caſt it away, then nothing being left in the cooler, and the beere well riſen, with your hand ſtirre it about & ſo let it ſtand an houre after, and then beating it and the barme exceeding well together, tunne it vp into the Hogſheads being cleane waſht and ſcalded, and ſo let it purge: and herein you ſhall obſerue not to tun your veſſells too full, for feare thereby it purge too much of the barme away: when it hath purged a day and a night, you ſhall cloſe vp the bung holes with clay, and onely for a day or two after keepe a vent-hole in it, and after cloſe it vp as cloſe

as may be. Now for your ſecond or ſmall drinke which are left vpon the graine, you ſhall ſuffer it there to ſtay but an houre or a little better, and then draine it off alſo, which done put it into the lead with the former hops and boyle the other alſo, then cleere it from the hops and couer it very cloſe till your firſt beere be tunn'd, and then as before put it alſo to barme and ſo tunne it vp alſo in ſmaller veſſels, and of this ſecond beere you ſhall not draw aboue one Hogſhead to three of the better. Now there be diuers other waies and obſeruations for the brewing of ordinary Beere, but none ſo good, ſo eaſie, ſo ready and quickly performed as this before ſhewed: neither will any beere laſt longer or ripen ſooner, for it may be drunke at a fortnights age, and will laſt as long and lively.

Of brewing the beſt March Beere.

Now for the brewing of the beſt March-Beere, you ſhall allow to a Hogſhead thereof a quarter of the beſt malt, well ground: then you ſhall take a pecke of peaſe, halfe a pecke of Wheate, and halfe a pecke of Oates and grind them all very well together, and then mixe them with your malt: which done, you ſhall in all points brew this beere as you did the former ordinary beere: onely you ſhall allow a pound and a halfe of hops to this one Hogſhead: and where as before you drew but two ſorts of beere: ſo now you ſhall draw three: that is a Hogſhead of the beſt, and a Hogſhead of the ſecond, and halfe a Hogſhead of ſmall beere without any augmentaion of hops or malt.

This March Beere would be brewd in the moneths of *March* or *April*, and ſhould (if it haue right) haue a whole yeere to ripen in: it will laſt two, three and foure yeeres if it lie coole and cloſe, & endure the drawing to the laſt drop, though with neuer ſo much leaſure.

Now

Now for the brewing of ſtrong Ale, becauſe it is drinke of no ſuch long laſting as Beere is, therefore you ſhall brew leſſe quantity at a time thereof, as two buſhels of Northerne meaſure (which is foure buſhels or halfe a quarter in the South) at a brewing, and not aboue, which will make foureteene gallons of the beſt Ale. Now for the maſhing and ordering of it in the maſh-fat, it will not differ any thing from that of Beere; as for hops, although ſome vſe not to put in any, yet the beſt Brewers thereof will allow to foureteene gallons of Ale a good eſpen full of hops, and no more, yet before you put in your hops, as ſoone as you take it from the graines, you ſhall put it into a veſſell and change it, or blinke it in this manner: put into the Wort a handfull of Oke-bowes and a pewter-diſh, and let them lye therein till the wort looke a little paler then it did at the firſt, and then preſently take out the diſh and the leafe, and then boile it a full houre with the hops, as aforeſayd, and then clenſe it, and ſet it in veſſels to coole; when it is milke-warme, hauing ſet your Barme to riſe with ſome ſweete Wort: then put all into the guilfat, and as ſoone as it riſeth, with a diſh or bowle beate it in, and ſo keepe it with continuall beating a day and a night at leaſt, and after tun it. From this Ale you may alſo draw halfe ſo much very good middle Ale, and a third part very good ſmall ale. Brewing of ſtrong Ale.

Touching the brewing of Bottle-ale, it differeth nothing at all from the brewing of ſtrong Ale, onely it muſt be drawne in a larger proportion, as at leaſt twenty gallons of halfe a quarter; and when it comes to bee changed, you ſhall blinke it (as was before ſhewed) more by much then was the ſtrong Ale, for it muſt bee pretty and ſharpe, which giueth the life and quickneſſe Brewing of Bottle-Ale.

neſſe to the Ale: and when you tunne it, you ſhall put it into round bottles with narrow mouthes, and then ſtopping them cloſe with corke, ſet them in a cold ſellar vp to the waſt in ſand, and be ſure that the corkes be faſt tied in with ſtrong packe-thrid, for feare of riſing out, or taking vent, which is the vtter ſpoyle of the Ale.

Now for the ſmall drinke ariſing from this Bottle-ale, or any other beere or ale whatſoeuer, if you keepe it after it is blinckt and boyled in a cloſe veſſell, and then put it to barme euery morning as you haue occaſion to vſe it, the drinke will drinke a great deale the freſher, and be much more liuely in taſte.

Of making perry or cider.

As for the making of Perry and Cider, which are drinkes much vſed in the Weſt parts, and other Countries well ſtored with fruit in this Kingdome; you ſhall know that your perry is made of peares onely, and your Cider of Apples; and for the manner of making thereof, it is done after one faſhion, that is to ſay, after your Peares and Apples are well pickt from the ſtalkes, rottenneſſe, and all manner of other filth, you ſhall put them in the preſſe-mill which is made with a mil-ſtone running round in a circle, vnder which you ſhall cruſh your peares or apples, and then ſtraining them through a bagge of haire-cloth, tunne vp the ſame (after it hath bene a little ſetled) into Hogſ-heads, Barrels, and other cloſe veſſels.

Now after you haue preſt all, you ſhall ſaue that which is within the haire cloth bagge, and putting it into ſeuerall veſſels, put a pretty quantity of water thereunto, and after it hath ſtood a day or two, and hath beene well ſtirred together, preſſe it ouer alſo againe, for this will make a ſmall perry or cider, and muſt be

ſpent

ſpent firſt. Now of your beſt ſider that which you make of your ſummer or ſweete fruit, you ſhall call ſummer or ſweete cider or perry, and that you ſhall ſpend firſt alſo; and that which you make of the winter and hard fruit, you ſhall call winter and ſowre cider, or perry; and that you may ſpend laſt, for it will indure the longeſt.

Thus after our *Engliſh Houſe-wife* is experienc't in the brewing of theſe ſeuerall drinkes, ſhee ſhall then looke into her Bake-houſe, and to the making of all ſorts of bread, either for Maiſters, ſeruants, or hinds, and to the ordering and compounding of the meale for each ſeuerall vſe. Of Baking.

To ſpeake then firſt of meales for bread, they are either ſimple or compound, ſimple, as Wheate and Rye, or compound, as Rye and Wheate mixt together, or Rye, Wheate and Barley mixt together; and of theſe the oldeſt meale is euer the beſt, and yeeldeth moſt ſo it be ſweet and vntainted, for the preſeruation whereof, it is meet that you cleanſe your meale well from the bran, and then keepe it in ſweet veſſels. Ordering of Meale.

Now for the baking of bread of your ſimple meales, your beſt and principall bread is manchet, which you ſhall bake in this maner: Firſt your meale being ground vpon the blacke ſtones, if it be poſſible, which make the whiteſt flower, and boulted through the fineſt boulting cloth, you ſhall put it into a cleane Kimneil, and opening the flower hollow in the midſt, put into it of the beſt Ale-barme, the quantity of three pints to a buſhell of meale, with ſome ſalt to ſeaſon it with: then put in your liquor reaſonable warme and kneade it very well together with both your hands and through the brake, or for want thereof, fold it in a cloth, and with your Baking Manchets.

your feete tread it a good ſpace together, then letting it lie an houre or there abouts to ſwell, take it foorth and mold it into manchets, round, and flat, ſcotch them about the waſte to giue it leaue to riſe, and pricke it with your knife in the top, and ſo put it into the Ouen, and bake it with a gentle heate.

Baking cheate Bread.

To bake the beſt cheate bread, which is alſo ſimply of wheate onely, you ſhall after your meale is dreſt and boulted through a more courſe boulter then was vſed for your manchets, and put alſo in o a cleane tub, trough, or kimnell, take a fowre leauen, that is, a piece of ſuch like leauen ſaued from a former batch, and well fild with ſalt, and ſo laid vp to ſower, and this ſower leauen you ſhall breake into ſmall pieces into warme water, and then ſtraine it, which done, make a deepe hollow hole, as was before ſaid in the midſt of your flower, and therein powre your ſtrained liquor, then with your hand mixe ſome part of the flower therwith, till the liquor be as thicke as pancake batter, then couer it all ouer with meale, and ſo let it lie all that night, the next morning ſtirre it, and all the reſt of the meale well together, and with a little more warme water, barme, and ſalt to ſeaſon it with, bring it to a perfect leauen, ſtiffe, & firme; then knead it, breake it, and read it, as was before ſaid in the manchets, and ſo mold it vp in reaſonable bigge loaues, and then bake it with an indifferent good heate: and thus according to theſe two examples before ſhewed, you may breake leauend or vnleauend whatſoeuer, whether it be ſimple corne, as Wheate or Rie of it ſelfe, or compound graine as Wheate and Rie, or Wheate and Barley, or Rie and Barley, or any other mixt white corne; onely becauſe Rie is a little ſtronger graine then Wheate, it ſhall be good

good for you to put your water a little hotter then you did to your wheate.

For your browne bread, or bread for your hinde-ſeruants, which is the courſeſt bread for mans vſe, you ſhall take of barley two buſhels, of peaſe two pecks, of of Wheate or Rie a pecke, a pecke of malt; theſe you ſhall grind all together and dreſſe it through a meale ſiue, then putting it into a ſower trough ſet liquor on the fire, and when it boyles let one put on the water, and another with a maſh rudder ſtirre ſome of the flower with it after it hath beene ſeaſoned with ſalt, and ſo let it be till the next day, and then putting to the reſt of the flower, worke it vp into ſtiffe leauen, then mould it and bake it into great loaues with a very ſtrong heate: now if your trough be not ſower enough to ſower your leauen, then you ſhal either let it lie longer in the trough, or elſe take the helpe of a ſower leauen with your boyling water: for you muſt vnderſtand, that the hotter your liquor is, the leſſe will the ſmell or rankneſſe of the peaſe be receiued. And thus much for the baking of any kind of bread, which our *Engliſh Houſe-wife* ſhall haue occaſion to vſe for the maintenance of her family. Baking of browne bread.

As for the generall obſeruations to be reſpected in the Brew-houſe or Bake-houſe, they be theſe: firſt, that your Brew houſe be ſeated in ſo conuenient a part of the houſe, that the ſmoke may not annoy your other more priuate roomes; then that you furnace be made cloſe and hollow for ſauing fewell, and with a vent for the paſſage of ſmoake leaſt it taint your liquor; then that you preferre a copper before a lead, next that your Maſh-fat bee euer neereſt to your leade, your cooler neereſt your Maſh-fat, and your Gul-fat vnder Generall obſeruations in the brew-houſe and bake-houſe.

vnder your cooler, and adioyning to them all ſeuerall cleane tubs to receiue your worts and liquors: then in your Bake-houſe you ſhall haue a faire boulting houſe with large pipes to boult meale in, faire troughes to lay leauen in, and ſweet ſafes to receiue your bran: you ſhall haue boulters, ſearſes, raunges and meale ſiues of all ſorts both fine and courſe; you ſhall haue faire tables to mould on, large ouens to brake in the ſoales thereof rather of one or two intire ſtones then of many brickes, and the mouth made narrow, ſquare and eaſie to be cloſe couered: as for your peeles, cole-rakes, maukins, and ſuch like, though they be neceſſary yet they are of ſuch generall vſe they neede no further relation. And thus much for a full ſatisfaction to all the *Husbands* and *Houſe-wiues* of this Kingdome touching Brewing, Baking, and all whatſoeuer elſe appertaineth to either of their offices.

The end of the English Houſ-wife.

FINIS.

THE INRICHMENT
of the VVeald of *Kent:*
OR,
A Direction to the Husband-man, for
the true ordering, manuring, and inriching of all the Grounds within the Wealds of *Kent* and *Sussex*, and may generally ſerue for all the grounds in *England*, of that nature: as,

1. *Shewing the nature of all Weald ſh grounds, comparing it with the ſoyle of the Shires at large.*
2. *Declaring what the Marle is, and the ſeuerall ſorts thereof, and where it is vſually found.*
3. *The profitable vſe of Marle, and other rich manurings, as well in each ſort of arable land, as alſo for the increaſe of Corne and Paſture through the Kingdome.*

Paintfully gathered for the good of this Iland, by a man of great eminence and worth, but reuiſed, inlarged, and corrected with the conſent and by conference with the firſt Author. By *Geruaſe Markham.*



LONDON,
Printed by *Nicholas Okes* for IOHN HARISON, at the golden Vnicorne in Pater-noſter-row. 1631.

To the Honourable Knight, Sir *George Riuers* of *Chafford*, in the County of KENT.

SIR

HAd I no ſcale (more then this bare and plaine moulded Epiſtle) by which to come to your worthy eares, yet in reſpect of the honeſt Liuery which it carries (being neceſſary and husbandly collections, eſpecially gathered for the Countrey and Soile wherein you liue) I know, it cannot chuſe but finde both fauour and mercy in your acceptation; but when I call vp into my conſideration, the great worthineſſe of your experience in this and all other the like affaires, which tend to the generall benefit of the Common-wealth, and weigh the excellency of your wiſedome, iudgement, bounty, and affection vnto hoſpitality (which giue both ſtrength and aduancement to proiects of this

nature) I could not but take vnto my selfe a double encouragement, and boldly say vnto this worke which I offer to your goodnesse; Goe and approach with all thy sweetnesse before him, he that so perfectly knowes all which thou canst or wouldst discouer; he that is able both to correct & amend any thing that is imperfect in thee, hee, for vertues sake, will neuer forsake thee. Beleeue me (worthy Sir) should this subiect wish it selfe a Patron, I doe not thinke, it could wish beyound you; for you are a volumne full of all that of which it intreateth: witnesse your yeeres, your place, your supportation of the poore, and your continuall imployments, with any of which, there is not (of your Ranke a second liuing in your Countrey, to walke hand in hand with you; Being then (deare Sir) the oldest and best friend to your Countrey; forsake neither her, nor this which comes to serue it; and though in this Glasse some lineaments may appeare imperfect, yet by the helpe of your fauour (though little be exact or most excellent) nothing shall be große or vnworthy the survay of your worthier patience. And so I rest.

Yours to be commanded.

Geruase Markham.

A discourse of the Weald of Kent; *and a comparison of the arable Lands therein, with the other parts of the Shire: Together with some necessary counsels for the ordering and inriching of the Marleable Lands in the Weald, or generally in any part of this Kingdome.*

THE Weald of *Kent* is the lower part of that Shire, lying on the South side thereof, and adioyneth to the Weald of *Sussex*, towards the West. Further additions.

This Weald both in *Kent* and *Sussex*, was sometimes all (or the most part) woody, wilde and (in the first times) vninhabited; and from thence tooke the name of Weald from the *Saxon* word, *Weale* or *Teale*, or *Weald*, which signifieth a woody countrey, or Forrest-like ground. The *Brittans* called it *Andred*, which signifieth Greatnesse or Wonderfull, and in Latine it was called *Saltus Andred* (that is to say) the Chase or Forrest of *Andred*, by reason of the great circuit, or large bounds thereof.

Touching the true boundary or limits of this Weald, there haue bin diuers opinions, and most of them various and much differing both in place and quantity; but that which is the neerest and best allyed vnto truth, both according to the opinions of *Asserius Menevensis*, *Henry* of *Huntingdon*, & others of most credible report, is; that it extendeth from the city of *Winchelsey* in *Sussex*, an hun-

dred and twenty miles in length towards the West; and 30 miles in bredth towards the north. Now, although this report be most agreeable vnto verity, yet who knowes not, that curiosity may raise vp many obiections to withstand it; & therefore M. *Lambert* in his Perambulation of *Kent*, hath prescribed the best & most infallible way to find out the true and certaine bounds of this Weald, to be onely by Iewry, or the verdict of 12 men impannelled for that purpose; either in case of controuersie, or other particular search; and this hath bin in these latter times brought forth most plentifully; for it hath beene found by diuers late verdicts, vpon speciall and most necessary occasions, that the Weald of *Kent* is truely M. *Lamberds* second step in his Perambulation of *Kent*, reaching from *Winchelsey* in *Sussex*, and that hill there, vnto the top of *Riuers* hill in *Kent*; and neither farther towards *London*, nor shorter towards *Tunbridge*; which agreeth so perfectly with the former limitations, that both may be receiued as most true and sufficient.

This Weald was for many yeares held to be a wild Desart, or most vnfruitfull Wildernesse (as write the Authors before mentioned) & indeed such is the nature and disposition of the soile thereof to this very day: for it will grow to frith or wood, if it be not continually manured and laboured with the Plough, and kept vnder by tillage, so as it may truely be said of it, *Inculta parantur vomere Siluæ*. It is throughout (except in very few places adioyning to brookes or riuers) of a very barren nature, & vnapt either for pasturage or tillage, vntill that it be holpen by some manner of comfort, as dung, marle, fresh earth, fodder, ashes, or such other refreshings; and that seemeth to haue beene the cause for which in olde time it was vsed as a Wildernesse, and kept for the most

part

part with heards of deare, and droues of hogs, as is ſpecified in diuerſe hiſtoricall relations.

And as there be yet remaining in *Suſſex* diuers great forreſts, and ſundry commons or waſts, hauing fiue or ſix miles in length, which for the moſt part are not fit to be manured for corne, and yeeld but little profit in paſture; ſo haue there bene alſo in *Kent* (within our memory) a great number of woody and ouer-growne grounds, conuerted of late to paſture & tillage, euen after ſuch a manner as in the ſaid Peramбulation is teſtified, where it is ſaid, that although the weald of *Kent* belonged to ſundry known owners long ſince, yet was it not then allotted into particular Tenancies, as the other parts of the ſhire were, but it was, in proceſſe of time, by little and little gained, as men were contented to inhabit there, & to rid it of the wood; And hereof it is alſo, that beſides ſundry whole pariſhes which be named dens or low places, as *Tenderden*, *Marden*, *Beneden*, and ſundry others, there be moreouer many ſmaller portions, almoſt in euery part of the weald of *Kent*; which he likewiſe called dens; as the den of *Cranbrooke* in *Cranebrooke*; the den of *Hawkehurſt* in *Hawkehurſt*, and ſuch others; the which (as it ſeemeth) were at the firſt vndertaken to be manured by ſundry particular perſons, whoſe names were then taken from thoſe very dennes, and continued many yeares together, as by ancient euidences it doth yet appeare, howſoeuer the age of long time hath now almoſt worne & conſumed them all out of knowledge. Neither doth the weald of *Kent* containe ſo many great manors or courts (for the proportion of the largeneſſe) as the reſt of the ſhire doth, but was appertaining, for a great part thereof, to ſundry of thoſe mannors which do lye at large diſperſed thorow the ſheire, whereof each one

had a great portion in the Weald, which both in the booke of Doomesday, and in sundry the court rols, and rentals, passeth by the name of Weald, and *Silua Porcorum*, or swine gats, which were granted to diuers of the farmers & owners of sundry tenancies, which did belong vnto those dennes, and other lands within the Weald.

And albeit these dens be for the most part good large portions of lands, that be now broken into many seueral possessions, so as the same one Denne sufficeth 20. housholders at this day, yet is it very likely that each man at the first had his seueral den wholly & vnbroken, whereof he & his posterity beareth name, vntill that the same was by the custome of *Gauilkind*, by sale or by exchange diuided & distributed amongst others into parts, as we do now see them But howsoeuer this Weald be of it selfe vnfruitfull (as I said) & of a barren nature, yet so it hath pleased the prouidence of the Almighty to temper the same, that by the benefit of Margle or Marle (as it is commonly called) it may be made not onely equall in fertility with the other grounds of the shire, as well for corne as grasse, but also superiour to the more and greater part of the same. The which manner of bettering the ground is not now newly discouered, but was the ancient practise of our fore fathers many yeares agoe, as by the innumerable Marle-pits digged & spent so many yeares past, that trees of 200 or 300 yeares old, doe now grow vpon them, it may most euidently appeare, besides the which we haue mention of Marle in books of gainage or husbandry, that were written in the days of K. *Edward* the 2. or before, howbeit the same manner of tillage, by meanes of the ciuill warres, maintained many yeares as well in the time of the Barons warres, as of the wars betweene the house of *Yorke* and the family of *Lancaster*, was

The vse of Marle is ancient.

Marling was discontinued, and is now reuiued.

was ſo giuen ouer, and gone out of vſe, vntill theſe 30. or 40. yeeres, that it may be ſaid to haue beene then newly borne and reuiued, rather then reſtored, becauſe the very true art of inriching the ground by *Marle*, ſeemeth to lye hidden in part, as yet not to be diſcouered to the full: for in this ſhort time we haue ſeen many arable grounds, which for ſundry yeeres after the marling of them, haue plentifully borne Wheat & other Graine, to be now become vnfruitfull, and ſo will they continue, albeit they ſhould be now marled againe. And this commeth to paſſe by the ignorance of the right manner of ordering the *Marle*, which is as ſtrong & chearfull as euer it was before, howſoeuer it worketh not his naturall effect, through the vnskilfulnes of the Husbandman, that both waſteth the *Marle*, and loſeth withall his time, his labour, his coſt, and the profit of his ground. I cannot deny but a man ſhall ſee ſome grounds, of nature fit to take *Marle*, and of ſituation ſo neere to *Marle*-pits long time opened, that they might be marled plentifully with little charge, and haue beene heretofore marled indeed, & yet the ſame to lie now vnploughed, and not onely barren of themſelues, but alſo vnapt for *Marle*, and vncapable of amendment by Tillage: but, I muſt ſay withall, that albeit the men in thoſe former Ages had the right ordering of *Marle*, yet were not they all good Husbands alike, neither doth the Field ioy alike vnder the Farmer, and vnder the very Owner of the ſame, the one ſeeking the very vttermoſt gaine that may be made during his ſhort intereſt, and the other indeauouring to perpetuate his commodity, euen to the end of his eſtate, which hath no end at all, ſo that through vnskilfulnes of the one, and greedines in others, the ground may ſooner be crammed to death with *marle*, then it ſhall be made the better or

fatter by it. The reaſon whereof I will reſerue, vntil that I haue cauſe to teach in particular, after what manner and meaſure the ground is to be marled. In the meane-while, I will open the nature and conditions of this wealdiſh ground, comparing it with the Soyle of the ſhire at large; and afterward declare vnto you what the *Marle* is, and what ſorts thereof, there be vſually found in the Weald of *Kent*; and laſtly, enter into the true and profitable vſe thereof, as well in each ſort of arable Land, as alſo for the increaſe of Corne and Paſture thorow the Kingdome.

The arable ground of this Weald hath commonly a fleet and ſhallow mould to be turned vp by the Plough, ſo as in many places the dead Earth or Mould is within three inches of the face of the ground, & in the beſt places, the good Mould exceedeth not ſixe inches in depth at the moſt, & therefore it wanteth conuenient ſubſtance to nouriſh Corne any long time, but will faint and giue ouer, after a Crop or two; for the which reaſon alſo, it cannot yeeld any ſweet or deepe Graſſe. Beſides this, the Weald hath many copped or hilliſh grounds, out of which there doe many Quits or Springs of water iſſue, that make it cold & barren; and from theſe Hillocks, the beſt part of the good Mould is waſhed downe into the Water-courſes and Dikes that be made to diuide and draine the Land. Furthermore, the Weald is diuided into many ſmall incloſures, the biggeſt ſort (for the moſt part) of which, are betweene ſixteene Acres and twelue in quantity, and thereby hath it many Hedges & Trees, which in vnſeaſonable weather do keepe both the Sunne and Winde from the Corne, ſo as for want of that ſuccour and comfort, it groweth, and many times rotteth in the Earth, ſo that it carneth not, nor eareth, nor proſpe-

reth

reth not kindly many times. And theſe ſmall Cloſes are cauſed by this, that men are not able to marle any great part or quantity of ground at once; and hauing marled a little, they are deſirous to ſow it with corne: for the preſeruation whereof, as alſo for draining it, they are inforced to make ſo many and ſmall feuerals: for all which reaſons it is plaine, that there is little good arable Land there, and rarely any good Paſture, thoſe only places excepted, which are amended by irrigations of flouds, which there is called flowing and ouerflowing. Contrariwiſe, the arable land of the Shire at large, hath a deepe and fat Mould of good Earth, that is able to beare fiue or ſixe good Crops together without intermiſſion; and after three or foure yeeres reſt, will doe the like againe, & may ſo interchangeably keepe that courſe for euer: yea there be many grounds that are ſowed without ceaſing, becauſe the Mould is ſo deepe, that when the vpper part thereof beginneth to faint and be weary, men can adde ſome ſtrength of Cattell, and with the Plough goe deeper, and fetch vp a freſh mould that will continue for a long ſeaſon Furthermore, this arable ground is a hollow dry ground, for the moſt part, on a deepe Clay, that by tillage, and the weather, will become dry, and ſpongy, ſo as the Raine there waſheth in the fat of the earth, the rather, becauſe it is not ſo hilliſh and ſliding as the Weald, but more leuell, euen and champion alſo, by which the Sunne and Winde doe dry the Corne, and doe make it both carne or eare well, and yeeld a purer flowre then that which is fobbed in wet, and hath long time lyen before it be dryed againe. But foraſmuch as the great odds between theſe two ſorts of grounds, may be made euen by the helpe of *Marle*, if it be rightly ordered, as I ſaid I will now ſhew you what it is, and how many ſorts

thereof be found in this Weald of our countrey. *Marle* is indeede, as it is in name, the fat or (marrow) of the earth: for ſo did the *Germanes*, and ſo did our elders the *Saxons*, terme it, of the word *Mariȝe*, which we ſound *Marrow*, & thereof we call it *marling*, when we beſtow that fat earth vpon our leane ground. *Pliny* ſaith, That the *Brittans* (meaning vs) did vſe to amend their Land with a certaine inuention which they called *marga*, that is, the fat of the earth, and it is to be ſeene in *Conradus Heresbachius*, that the *Germanes* do vſe it to the ſame end, and do call it by the ſame name till this very day: it is therefore a fat, oily and vnctious ground, lying in the belly of the earth, which is of a warme & moiſt temperature, and ſo moſt fertill ſeeing that heat and moyſture be the father & mother of generation and growth; howbeit this is not a pure & ſimple marrow (as that is which lieth in our bones) but a iuice, or fat liquor mingled with the earth, as is the fat which lieth mixed, and diſperſed in our fleſh, ſo as the one may be drawne away, and the other remaine, as it ſhall anon appeare vnto you.

Foure ſorts of Marle.

Foure ſorts of *marle* be found in this weald, knowne aſunder by the difference of colors, and thereby alſo differing in degrees of goodneſſe one from the other: for there is a gray, a blew, a yellow, and red *marle*, all which be profitable, if they be earthy & fat, or ſlippery as ſoape: and moſt times little worth, if they be mixed with ſand, grauell, or ſtone. So the blew is reputed the beſt, the yellow the next, the gray the next, and the red leſſe durable then the other three; and yet it is thought the red to be the better, if it be found vpon the blew or others. Theſe *marles* do lye in veines or floores, amongſt thoſe hillocks or copped grounds moſt commonly, whereof I haue ſpoken, and do oftentimes ſhew themſelues

1. 2. 3. 4.

ſelues at the foote of the hill, or about the mid way betweene the foot and the top thereof: ſome of them haue ouer them a couer of ground, which we call Cope, not exceeding ſeuen or eight foot in depth; ſome lie deeper, and other ſome do ariſe, as namely, where the ground lieth not high, and that *marle* commonly is very good; and there is in diuerſe leuell grounds good *marle*.

And as *marle* is for the moſt part of theſe foure colours, ſo is arable ground for the moſt part of theſe foure ſorts following; that is to ſay, either a cold, ſtiffe and wet clay, which is either the cope of the *marle*, or lieth neere vnto it, and is therefore commonly called, *The marle cope ground*, or a haiſell mold, which I count to be one of the beſt wealdiſh molds, being a compound mould, and very good for *marle*, and will quit the coſt very well. Then are there two ſorts of ſandy mold, the one being a reaſonable good kind, but not equall to the haiſell mold, for you ſhal haue in diuers places of the weald this haiſell mold to beare two or three good crops of wheat being Summer-fallowed, together, which you ſhal hardly haue of any ſandy ground without mending: but as I ſayd of the better ſort of theſe two kinds of ſandy molds, you haue commonly very rich wheate, being well marled, which is not ſo barren as the other; but this laſt kind of ſandy mould, is a very barren kinde of ground, and hath a very fleete mold, and you ſhall haue very heath grow vpon it in diuers places; and yet being ordered as followeth with *marle*, will beare both good corne and paſture. And now that we may the better vnderſtand how to marle and manure euery of theſe ſorts by it ſelfe, you muſt know that the haiſell ground being dry, and not ſubiect to Winter-ſprings, or teares of water (for, which ſome call ſuch, A whining or weeping ground),

Foure ſorts of grounds.

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3. 4.

ground) is to be handled thus.

The ordering of the Haiſell mould.

Firſt, plough it as deepe as you can, with the ſtrength of eight beaſts at the leaſt; and be not afraide to plough vp ſome part of the dead earth that lieth vnder the vpper good mould, for the Sunne, the raine, the wind, and the froſt, will in time mellow and amend it; and beſides that, the mould: will be the deeper for a long time after, and thereby keepe it ſelfe the longer from being ſtiffened with the *Marle*. Then may you beſtow 500. cart-loads (as we call them) of *marle* vpon each Acre thereof, euery load containing 10. or 12. Buſhels of eight gallons, and each Acre containing 160. Rods of 16. foote and a halfe to a rod. Then alſo you may chuſe whether, at the firſt breaking vp, you will ſow it with Oates, to kill the graſſe, or elſe firſt marle it, and ſow it with wheate, or otherwiſe Summer-fallow it in the *May* after the oates, and then marle it, and ſow it with wheate. Vpon that fallow or gratten (as we call it) you ſhall doe well to ſow it with peaſe, and at *Michaelmas* following, to ſow that Peaſe ſtubble or Gratten with wheat againe, which alſo will be the better, if the Summer wherein it carried Peaſe, were moyſt, becauſe the peaſe being rich and thicke, do deſtroy the graſſe, that together with the waſhing of the fallowes by raine, doth greatly conſume the hart and vertue; or, as we call it, the ſtate of the ground. But if that Summer were dry, then is a fallow beſt, becauſe the Sunne with his heate doth much good to the ground, and inableth it the better to beare out the weather in the Wheate ſeaſon enſuing. If you like to ſow it, as I ſayd, with peaſe, ſow them as earely and timely as you may, for they wil be ſo much the ſooner haruеſted, and then alſo you may plough or ſtir your Gratten the ſooner, whereby it will be the better hardened to beare

out

out the weather in the time of ſowing of your wheate: but I doubt, Peaſe doth ſomewhat ſtiffen it. Two buſhels of Wheat do ſuffice for the ſowing of an acre hereof, except it be for the firſt crop, after the new breaking vp of the ground; during which time, there is found a worme, called an *Emble*, which in *French* ſignifieth corne in the ground, being of colour yellow, and of an inch in length, and will eate ſome part of the corne; but if you ſow it thicke, it will be both ſmall eared & thicke, and ſlender of ſtraw, which the raine & wind will beate and hurle downe, and then it will ſcarcely riſe againe; or if it do, yet through the neereneſſe of the ſhadow of the trees and hedges, that in ſo ſmall cloſes be many, it will rather rot for want of drying, then come to maturity, that is, to perfect hard, and full growne corne. After your firſt marling, you muſt carefully foreſee, that you plough not this ground either with deepe or broad Furrowes, but fleete and narrow, leſt you caſt your Marle into the dead mould; for marle differeth much from doung in this behalfe; doung ſpendeth it ſelfe vpward, and howſoeuer deepe it lye, the vertue thereof will aſcend: but marle (as ſaith *Sir Walter Henly*, in his Husbandry) ſendeth his vertue downeward, and muſt therefore be kept aloft, and may not be buried in any wiſe. Furthermore, if your ground be hilliſh or coppied, it ſhall be fit that you make your Ridges 7. or 8. foote broad at the leaſt; for in ſuch falling lands, the more broad furrowes you make, as you muſt make many, where you make Ridges, the more of your *marle* ſhall be waſhed and carried into the bottomes. It is good alſo to drawe a croſſe or quarter Furrowe, and opening the endes of your land Furrowes into it, to leaue the other endes of your Furrowes ſtopped, *Note.*

that

that the water-ſhoot run not all the length of the field. Againe, this ground would alwaies be ſowne vnder furrow, and that alſo before *Michaelmas*, if the ſeaſon will ſo permit: for this ground (if it be well husbanded) will be mellow and hollow, or looſe, whereby through Raine and Froſt, it would ſinke downe from the roote of the Wheat; if it ſhould be ſowne aboue Furrow, the which being vncouered, muſt needs be bitten and killed with the cold. It is alſo very fit that you harrow not this ſort of ground too ſmall, but that you leaue the clods as big as a Bowle, the which being mouldred with the froſt, will both couer and keepe warme what is vnderneath. Moreouer, it ſhall be good, that vpon ſome faire, and dry day, in the beginning of *March*, you put your flocke of Sheepe into your Wheat, that with their trampling vpon it, the Corne may be well & faſt cloſed with the earth; yea, & preſently after (if it wil beare foot) you may roll it as you doe Barley, whereby both the Clods ſhall be broken, and the Gratten or ſtubble ſhall be more euen and ready for the Mower. Generally you muſt vnderſtand, that after you haue beſtowed your *Marle* in the field, you ought to let it lie vnſpred abroad, vntill you be ready to plough, & then immediately after the ſpreading of it, turne it into the ground with the Plough; for otherwiſe, if it ſhould lie long ſpred in the field, the Sunne will ſpend no ſmall part of the fatneſſe thereof, although I know many deſire it, becauſe it will be the ſmaller being burned with the Sun, which I like not. And therefore alſo no good Husband will carry and ſpend his dongue in the time of Summer, except he doe preſently with all plough it into the ground; for although the Mould of the arable Land it ſelfe will take good, if it be turned to the Sunne, which will both dry and

and taſten it, yet the matter fareth farre otherwiſe with the *Marle*, from which if the Sun ſhall draw and ſucke the fat moiſture that maketh the Land fertile, then becommeth it (as *Columella* ſpeaketh) of the worſt ſort of ground, *Solum ſiccum, pariter & denſum & macrum, quod ſine exerceatur, ſiue ceſſat, colono refugiendum eſt.* It becommeth (ſaith he) a dry, thicke, and leane Clod, which whether it be tilled or laid to reſt, muſt be forſaken of the Husbandman as vnprofitable. And now your Haiſell mould being thus marled, ploughed, ſowne, and meanured, you may not charge with Wheate aboue twice, and then it muſt reſt fiue or ſixe yeeres together; all which time it will beare a very good and ſweet Paſture, well ſet with a white Clouer, or three-leaued graſſe, moſt batning and profitable, both for Sheepe and Bullockes.

After thoſe yeeres ended, it will grow to ſome Moſſe, or will peraduenture caſt vp Broome, and then it is time to breake it vp, and ſow and handle it as before, for two other Wheat ſeaſons or Crops, leauing it a Wheat-gratten or ſtubble, rather then with an Oat-Gratten or ſtubble, which burneth the Land being marled. Being thus interchangeably ſowed and reſted, your Haiſell mould will continue good arable and Paſture, by the ſpace of thirty yeeres together, whereas if it ſhould be continually ſowed, ſixe, ſeuen or moe yeeres together without reſt, it will become vtterly vnfruitfull, both for Corne and Cattell alſo. Neither will it any thing auaile to marle it ouer againe when it is ſo decayed, becauſe the former *Marle* hauing his iuice exhauſted by continuall Tillage, whereof the Corne ſucketh one part, and the Sunne, Winde and Weather dryeth and waſteth the reſt, is but a dead Clod (as I ſaid) that is not capeable

of

of new *Marle* to amend it, nor casteth any profitable grasse at all; for proofe hereof, I my selfe, seeing that the common earth of High-waies, were by treading of Cattell, washing of Raine, and the drying of the Sunne and weather, it lay separated from that naturall iuice which it hath in the pit, and spreading it vpon the ground, I saw that the land was not onely not amended, but much the worse by it. And now for an end of handling this sort of Haisell ground; if it shall appeare vnto you, that fiue hundred loads of *Marle* vpon the Acre, haue clanged, stiffened, and too fast bound your land (as indeed the nature of *Marle* is to bind and to stiffen) then take you some of these waies to helpe it: either rest it foure or 5 yeeres, or fodder vpon it before you breake it vp with so many Cattell as you may; or take the vpper most part of your Ditches or Forelands, or waste places of your fields which you may mingle with Dongue, and which, before you sow your Wheat, you may lay vpon your fallow, and sturre it in with your Plow, and by this you shall both loosen your *Marle*, and refresh your ground, so that within forty yeers the mold of your ground will cleane eat vp & swallow the *marle* that you lay vpon it; and then become hungry, and as capeable of *Marle* againe as it was before at the first.

And by this also, you may see the very cause for which it is good not to sow your marled Land continually, but to pasture it by turnes and so giue it rest; namely, because the continuall ploughing doth exhaust and spend the fat of the *Marle*, leauing the drossie, dry, and fruitlesse parts thereof, to lye and couer the face of your ground; whereas pasturage, through the donguing, treading, and foddering of Cattell, doth increase a new Mould, which mingling it selfe with the dead Mould, doth

doth in the end giue some life and heart vnto it. And therefore these Farmours and owners that haue beene at the cost to marle their ground, and will not forbeare to till it, but hasting to raise theire charge, doe thereby vtterly strike it with barrennesse, are like to *Æsops* man, who hauing a Henne that layed him euery day a golden Egge, and being greedy to haue all the gold at once, did therefore kill the Henne, thinking to haue found her belly full of gold, and so was both defrauded of that he looked for, and lost also what he had before. Hitherto of the nature, ordering and marling of this Haisell ground. Generally now for the continuall fallowing and stirring thereof, you must vnderstand, it may neither be fallowed wet, least it answere more Grasse then Corne; nor yet so dry, that the dead bottome swell vp, as in great drought it will, and swallow the good Mould that lieth aboue, and therefore bind not your selfe to any precise time of any moneth, but the opportunity either in *May* or *Iune*, as you shall finde the weather to haue prepared it for your desire. In the like temper you ought to stirre it after a showre, after Saint *Iames* his day, or in the end of *July*; for so will it be dry and hard before the time of sowing, whereas if it be stirred later, euery small Raine will distemper it into Dirt or Mire, by reason of the tendernesse thereof, and then can you not fitly bestow your seed vpon it.

The ordering of the Marle Cope ground.

The *Marle* Cope ground followeth, which is most commonly (as I said) a stiffe, wet, cold Clay, and not so fit as the former to be marled for Corne, except in some few fleete places thereof, but yet it may serue for Pasture or for Oates; such of them as be marled, must be fallowed fleet or shallow, least the *Marle* become

come drowned in the wet: then being marled, they may in dry Summers (and not ouer-moiſt Countries) beare Wheat in ſome mediocrity. Three hundred loads at the moſt of *Marle* are ſufficient for an Acre of this kind, and two buſhels & a halfe of Wheat will ſow the ſame, which muſt be caſt aboue Furrow fourteene or twenty daies before *Michaelmas*. It requireth round, high and narrow Ridges, and that the water-Furrowes be ſtricken ſomewhat deepe, the better to conueigh moiſture from the Corne, and that it be left cloddy as much as may be: and yet to ſay the truth, ſuch as will conuert this ſort of ground to tillage, muſt prouide a greater quantity of rich ground or Greet (as we terme it) and Dongue, then of *Marle* it ſelfe, to amend this Land withall. But if there be any ground that is light and whining, or weeping, becauſe of Springs that are therein, and therewith doth caſt vp Ruſhes, let that be marled vpon the greene land with 4 hundred or fiue hundred loads vpon the Acre, about the latter ende of Summer; for ſo will the *Marle* ſinke into it, and caſt vp a ſweete graſſe for eight or ten yeeres together, and vntill that the *Marle* be ſunke ſo low, that another ſword or cruſt of earth be growne ouer it, and then is it fit time to plow it, but yet very fleet and narrow, for ſo will it beare good Oats; but if it be ſo wet that you cannot aduenture to ſow your Wheat vpon it, becauſe the Ruſhes be not killed with this firſt plowing, then may you ſow it againe with Oats, drawing good water-furrowes to draine it, becauſe it will be the wetter for plowing, and thereby the *Marle* alſo will the ſooner loſe his force; thus doing, let it lie to Paſture againe.

Ruſhes.

There be ſome other grounds of the *Marle* Core, which carrie a ſowre Graſſe, and the Dyers Weede (com-

Dyers-weed.

(commonly called Greening weed) and hauing a great tore thereof, the which alſo may be amended by three hundred or foure hundred load of *Marle* vpon the Acre of the greene Land: for the *Marle* will both rot the tore or veſture thereof, and alſo inrich the mould very much; ſo as it will anſwere good Paſture twelue yeeres after: and when you ſhall perceiue that the *Marle* is well ſunke, then may it be ploughed fleet and narrow, ſowed with Oats, and fallowed; ſo may it both beare good Wheat, if it finde a good ſeaſon, and be the richer a long time after, partly by the benefit of the *Marle*, partly by the rotting of the tore, and ſword, and partly by the doung and water of the Cattell that paſture vpon it: for the ſweeter the Paſture is, the more Beaſts it feedeth, and the more Beaſts it beareth, the more it ſelfe is amended by it.

Touching the fallowing of this ground, great heed is required: for as it ſwelleth more then the Haiſell ground, if it be taken hard and dry, ſo it is more graſſie then that, or the ſandy Soyle, if you fallow it wet: The ſeaſon therefore followeth commonly in *Aprill*, or in the beginning of *May*, for to fallow it, and to ſtirre it about *Midſummer*, or ſo ſoone after as the raine ſhal haue prepared it meet for your vn-ſhod Oxen to labour vpon it. Many men fearing to hit the right ſeaſon for this ground in the Spring of the yeere, doe make it ready by a Winter fallow before *Chriſtmas*, and by ſtirring it before *Midſummer*, if they may; which manner is not to be miſliked.

Laſtly, commeth the two ſorts of ſandy ground, and grauelly mould; the one being to be ordered much after the Haiſell mould, ſauing he would haue ſomewhat more *Marle*, and alſo would be fauoured more in the

The ordering of the ſandy Moulds.

often tillage, then it: for the Haiſelt Mould will beare or endure more tillage then the Sand. But this laſt ſort of ſandy ground, being a very ſtaring Sand (as we vſe to call it) for much of it will beare Heath, being of it ſelfe very barren, and very fleet or ſhallow Mould, and ouer hot and dry, and by reaſon of that extremity, is vnfertill, except it be marled very plentifully. And therefore when you breake vp this ground, plough it as deepe as you may, not fearing to caſt downe the beſt Mould thereof, becauſe the *Marle* will pierce therow, and ſinke downe into it. An Acre of this ground requireth fiue hundred or ſixe hundred loads of your *Marle* at the leaſt. Sow alwaies vnder-furrow about *Michaelmas*, with two Buſhels and a halfe vpon the Acre, which it will better carry then the Haiſel ground: for although the Straw be ſmall, yet will it be harder, and ſtand better then that of the other. The worme whereof I ſpeake, will be buſie with that, that groweth on this ſort of ground, vntill that the heat thereof be ſomewhat aſſwaged by the *Marle*. If your ground be hilly, make your Water-furrowes in ſuch ſort, as I haue ſaid before, for the ſauing both of your *Marle* and Mould; harrow it very little, leaue it as cloddy as you may. After that you haue taken a Crop from it, fallow that Wheat Gratten or Stubble in *May*; after that ſtirre it alſo, and then about *Michaelmas*, ſow it with Wheat againe: for it is not yet rich enough to beare you good Peaſe. This done, let it reſt foure or fiue yeeres, and if it ſend vp any plenty of Broome, cut or pull them when they be of ſome meane bigneſſe, but plough not the ground, vntill it haue taken ſuch reſt; and after it, you may well breake it vp of new, and ſow it with Oats: which Oate Gratten or Stubble,

you

you muſt Summer fallow, when it is at the Harueſt; and then if you deſire to haue it in good heart, you muſt marle it with three hundred or foure hundred loads vpon the Acre againe. After this Crop thus taken, reſt it fiue or ſixe yeeres, and then take one Crop more of Oates from it, and after a Summer-fallow, ſow it with Wheat, and ſuffer it to lye a Wheat Gradden or Stubble, till it ſhall haue reſted as before, is appointed for the Haiſill ground, and ſo will it be the better thirty or forty yeeres after the marling. Wee haue in this Weald a ſandy and grauelly ground that is wet and weeping, the which is ſcarcely worth the marling except the neerenesſe of the *Marle*: and thereby the ſmall coſt and charge thereof, may intice a man to beſtow the coſt vpon it with *Marle*, and then the beſt way is to marle vpon the greene Land, or vpon a fallow, with fiue hundred loads or more vpon the Acre, or rather to take the profit thereof by Paſture then by Tillage: for it will hardly beare good Corne, which is ſoone killed with the wet vapour that is continually ſent vp from the wet Springs that lye vnder it. This ſort of ground is to be fallowed, when it is both hard and dry, becauſe it ſwelleth not as doth the Haiſell Mould, and may therefore be taken in *Iune*, if former faire weather bring it not to a dry ſeaſon; and it is to be ſtirred alſo after a ſhowre, in the like plight as the Haiſell mould before. Your marleable grounds being ordered in this wiſe, ſeuerally ſet downe for each kinde of them will continually ſtand fruitfull either for Corne or Paſture: and albeit the high prices which Corne hath of late yeeres carryed, may allure ſome men to ſow Corne inceſſantly, and thereby to ſpend their *Marle*, and to choke their arable in the

end, yet I doubt not but the wiſer ſort can ſee that it is much better to maintaine their grounds hearty and in good plight for euer, then to rayſe a ſhort gaine, that will bring a long and perpetuall loſſe vpon them, the rather alſo, becauſe that Butter, Cheeſe, and the fleſh of Beefe and murton, be aduanced in price equally, if not beyond Wheat, Rie, Barley, and the other Graines. Howbeit a good Husbandman will make his profit of them both: for if he haue one hundred, or one hundred and twenty Acres of this Wealdiſh arable, he will ſo marle and manure them, that diuiding his Land into fiue or ſixe equall parts, he may continually plough twenty or fiue and twenty Acres for Corne, and yet lay to Paſture the reſt by turnes: ſo that by the helpe of his *Marle*, his Land ſhall be continually rich and profitable, both in the one and other of them. And as thus I haue ſpoken of the Weald, deſcribing the nature and property thereof: ſo may euery man of diſcretion and iudgement, which ſhall meet with earth of the ſame quality and condition (in what part of this Kingdome ſoeuer) make application of theſe Rules before rehearſed, and no doubt but the profit will make both the labour and coſt profitable and pleaſant.

The

The seuerall wayes, according to the opinions of Writers, and the certaine wayes according to the experience of Husbandmen, for the destruction of Moles *or* Moales, *which digge and roote vp the earth, and how to reduce and bring the ground to the first goodnesse, hauing bin spoyled by them.*

IT is needlesse either to describe the nature and quality of this vermine, or the iniury and hurt which they do to the Husbandman, Gardner, and Planter, since no Countrey is exempt from their annoyance: but touching the remedies, they are of greater secresie, and therfore I thought good in this place to insert them.

The ancient Writers ake of diuers opinions touching the manner of destroying this creature, and therefore haue left vnto vs sundry Medicines how to worke the same: amongst the which, one writeth, as an approued experiment, that if you take Walnut shels, and fill them with Brimstone, Chaffe, and Petrosin, and then setting them on fire, put them into holes or trenches, thorow which the Moale passeth, and the very smell or stinke thereof will poyson them; so that if you digge, you shal find them dead in their holes.

Another affirmeth, that if you take Brimstone, and danke stinking litter of horses, and burne it in the holes or haunts of the Moales, it also will inpoyson them; so as you shall find they will come out of their caues, and lye dead vpon the greene grasse.

A third affirmes, that if you take greene Leekes, garlicke, or onyons, and chopping them grossely, thrust it into the holes, and the very fume or sauour thereof will so astonish and amaze the Moales, that they will presently forsake the earth, and falling into a trance, you

may take them vp with your hands. Now there is not any of these medicines which can be disallowed: for there is no doubt but that they will worke the effects spoken of, if the moale can be brought to take a full sent thereof: but it is a vermine curious of sent, and passing quicke of hearing, and being in a spacious ground, will preuent these baites; and therefore they are rather to be applied for gardens or little grounds, where there is but a moale or two, then in large fields, where there be many hundreds.

To conclude, for this matter of medicines, or for the helping of gardens, hop-yards, or any small spot of ground, there is not any thing held more abaileable, then to sow in that place the hearbe called *Palma Christi*: for it is found by certaine experience, that whersoeuer that hearbe groweth naturally of it selfe, or otherwise is either purposely sowne or planted, there in no wise will any moale abide.

Thus much I thought good to shew you for the vse of medicine, and for clearing of small grounds: now for the annoiances which happen to great, large, & spacious fields, through the multitude of moales; there is onely three absolute wayes for the curing of the same.

The first is, in the moneths of *March* and *Aprill*, to view where they cast, and go about to make an extraordinary great hill in which they build them nests, which is knowne by the new reise of the mold; then looke for the new trench which leadeth to the same; for as she goeth she returneth: then with your moale spade open the trench in diuers places, and then very still and silently, and obseruing to take the winde to preuent both hearing and smelling, watch the Moale as she goeth or returneth, which is, Morning, Noone, and Euening, and as

ſoone as you ſee her caſt, ſtrike her with your Moale-ſpeare, made of many ſharpe pikes, and ſo caſt her vp, and kill her. Thus haue I ſeene by one man an hundred deſtroyed in one day.

The next infallible way for the deſtruction of Moales is: If you can by any poſſible meanes bring in water to ouerflow and waſh your ground, and as ſoone as the earth is wet ouer, the Moales will come forth of themſelues, and you may gather them vp with your hands at pleaſure.

The laſt (in deed as much approued as any) is to take a liue Moale in the moneth of *March*, which is the rucking or ingendring time, & put it into a deepe braſſe Baſon, or other deepe ſmooth Veſſell, out of which the Moale cannot creepe, and then at euening bury it in the earth vp to the brimme, and ſo leaue it, and the imprſoned Moale will preſently beginne to ſhrike, or complaine or call, ſo that all the Moales in the ground will come to it, and tumbling into the Veſſell, they are priſoners alſo, and the more priſoners, the greater will be the noiſe; and the more noiſe, the more moales will come to the reſcue, ſo that I haue ſeene 50. or 60. taken in one night, and in one Veſſell or braſſe Kettle.

Now, hauing thus learned how to deſtroy the moals, it is meet you alſo know how to preuent the comming in of forraigne moales; becauſe though you keepe your ground neuer ſo cleane, yet if your next neighbour be an ill-Husband, his field may ſoone inpoyſon yours againe: therefore to preuent the comming in of any forraigne moale, make but little Furrowes or Trenches about your ground, and ſcatter in them ſmall round Balls made of Hemp-ſeed, or Hemp-ſeede and *Palma Chriſti* beaten together, and you ſhall not neede to feare the

comming in of any neighbour Moales, how many ſoeuer there be about you.

Laſtly, for the reducing or bringing the ground to the firſt perfection againe (for howſoeuer ſome Husbandmen ſay, moe Moale-hills, more ground; yet tis certaine, that moe Moale-hills, leſſe good ground) for neuer yet was ſweet graſſe ſeen on a Moale-hill; therefore to bring it to perfection, which I meane, to be meadow ground, or ground to be mowne, which Moale-hills cannot be: you ſhall firſt with a ſharpe Paring-ſhouell, pare off the ſwarth about three fingers deepe, for feare of hurting the roots of the graſſe; and then the ſwarth taken off digge away the reſt of the mould, and ſcatter it as ſmall as you can round about the Hill, then take the greene ſwarth, and cutting it artificially, lay it cloſe, and faſt, and leuell, where you tooke away the mould, as if there had neuer beene Hill there: and thus doe to all your Hills, though they be neuer ſo innumerable; and after all your ground is leuelled, as ſoone as the firſt ſhewre falleth, run all your ground ouer with a paire of backe Harrowes, or an Harrow made of a Thorne-buſh, and it will breake the mould as ſmall as aſhes, which will ſo comfort and refreſh the root of the graſſe, that it will grow in infinite abundance; and the ſowreneſſe which was cauſed by reaſon of the Hills, will come againe to a perfect ſweetneſſe, and the meadow will be more fruitfull then before by many degrees. And thus much for the deſtruction of Moales, and the reducing of the earth to his firſt goodneſſe.

FINIS.

Markhams farewell to

HVSBANDRY

or,

The enriching of all ſorts of Barren and *Sterile grounds in our Kingdome, to be as* fruitfull in all manner of Graine, Pulſe, and Graſſe, as the beſt grounds whatſoeuer:

Together with the annoyances, and preſeruation of all Graine and Seede, from one yeare to many yeares.

As alſo a husbandly computation of men and cattels dayly labours, their expences, charges, and vtmoſt profits,

Now newly the third time, reuiſed, corrected, and amended together with many new Additions, and cheape Experiments:

For the bettering of arible paſture, and wooddy grounds: Of making good all grounds againe, ſpoyled with ouerflowing of ſalt water by ſea breaches, as alſo the inriching of the hop-garden, and many other things neuer publiſhed before.



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TO THE RIGHT VVORSHIPFVLL and his most worthy friend Mr *Bonham Norton* Esquire.

Worthy Sir:

KNowledge which is the diuine mother of certaine Goodnesse, neuer came vnwelcome to a knowing Iudgement; no more I hope shall this my labour to your worthy Selfe, since doubtlesse you shall finde in it many things New, some things necessary, and nothing which hath not in it some particular touch of profit: It is a worke your former incouragements to my other labours did create in me; and the wants you worthily fouud, I hope shall bring you supplies both wholesome and becomming. The experience I assure your Goodnesse, was the expence of a bitter and tedious Winter; but the contentment (in gaining my wish) made it more pleasant then all the three other Seasons.

What euer it be, it comes to you full of loue, full of seruise: And since I know Vertue measureth all things by its owne goodnesse; it is enough to me, that I know you are that Vertue. In you is power to iudge, in you is Authoritie to exercise Mercy, let them both flye from your Goodnesse, with that mildnesse, that in them my hopes may be crowned, and my selfe rest euer at your seruice,

GERVASE MARKHAM.

The Preface to the Reader,

Shewing the vse, profit, and the ends of the Worke.

THe vse and application of this Worke (gentle Reader) is to reduce the hard, Barren and Sterile grounds, such as were neuer fruitfull, or such as haue beene fruitfull and are made barren by ill husbandry, to be generally as fruitfull as any ground whatsoeuer; from whence shall ensue these generall profits.

First, plenty of Corne and Pulse, because all grounds being made able and apt for tillage, the Kingdome may afforde to sowe for one bushell that is now, hereafter fiue hundred, so mighty great are the vnfruitfull wasts of Heathes, Downes, Mores, and such like, which at this day lie vnprofitably, and to this abundance of Corne will arise an equall abundance of Grasse and Pasture, for as the best ground of the worst, is to be conuerted to Pasture, and the worst to Tillage, so that worst being tilled and drest, when it hath done bearing of Corne, (which will be in sixe or seuen yeares) shall for as many yeares more beare as good pasture either for breeding or feeding as can be required, and then being newly drest againe, shall newly flourish in its first profit.

Secondly, whereas in fruitfull places the third or fourth part of all arable ground is lost in the fallow or

tilth ground, now in theſe barren grounds you ſhal keepe no fallow field at all, but all ſhall beare either Corne or Graſſe, that fallow part ſerving to pay for the charge beſtowed on it and the reſt.

Laſtly, whereas in fertile grounds you cannot haue either Wheat, Barley, [illegible] Rye, vnder two, three, foure, fiue, and ſometimes ſi[illegible]tuerall plowings, as fallowing in *January* and *Febr[illegible]*, Stirring in *April* and *May*, Foiling in *July* and *Auguſt*, Winter-ridging in *October* and *November*, and Sowing with other Ardors; now in theſe hard grounds reſtored you ſhall not plow aboue twice at the moſt, to the ſauing of the Husband-mans paines, his Cattels trauell, and a larger limitation of time for other neceſſary buſineſſes.

For the truth of the Worke he that will ride into the barren parts of *Deuon ſhire* or *Cornwall*, into the mountainous parts of *Wales*, into the hard parts of *Middleſexe* or *Darby-ſhire*, or into the cold parts of *Northumberland*, *Cumberland*, *Weſtmoreland*, *Lancaſhire*, or *Cheſhire*, ſhall finde where induſtry is vſed, a full ſatisfaction for all that is here written. Farewell.

Thine, G. M.

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An excellent way to take Moles, and to preserue good Grounds from such annoyance.

PVt Garlike, Onions, or Leekes, into the mouthes of the holes, and they will come out quickly as amazed.

MARKHAM, HIS Farewell to Husbandry.

Chap. 1.

The nature of Grounds in generall; But particularly of the barren and sterile earth.

TO come to the full effect of my purpose without any preambulation, or satisfaction to the curious, for to the honestly vertuous are all mine endeuours directed: you shall vnderstand that it is meet that euery Husbandman be skilfull in the true knowledge of the natures of Grounds; as which is fruitfull, which not: of which, in my first Bookes I haue written sufficiently; nor do I in this Booke intend to write any tittle that is in them contained; for as I loue not *Tautologie*, so I deadly hate to wrong my friend.

Grounds then, as I haue formerly written in my first Bookes, being simple or compounded; as simple Clays, Sands, or Grauels together; may be all good, and all fit to bring forth increase, or all euill and barren, and vnfit for profite: for euery Earth, whether it be simple or compounded, whether of it selfe or of double

mixture, doth participate wholly with the Clyme wherein it lieth; and as that is more hot, or more cold, more moyſt, or more dry, ſo is the earth euermore or leſſe fruitefull: yet for the better vnderſtanding of the plaine Countrey man, you ſhall knowe that both the fruitfull and vnfruitfull Ground haue their ſeuerall faces and characters whereby they be as well knowne as by the clime or ſituationof the continent; for that ground which though it beare not any extraordinary abundance of graſſe, yet will loade it ſelfe with ſtrong and luſty weedes, as Hemblockes, Dockes, Mallowes, Nettles, Ketlockes, and ſuch like, is vndoubtedly a moſt rich and fruitefull ground for any graine whatſoeuer. Alſo, that ground which beareth Reede, Ruſhes, Clouer, Daiſie, and ſuch like, is euer fruitfull in graſſe and Herbage, ſo that ſmall coſt and leſſe labour in ſuch grounds, will euer make good the profit of the Husband man: But with theſe rich grounds at this time I haue nothing to doe.

Knowledge of of barren grounds.

To come downe then to the barren and vnwholeſome Grounds, you ſhall vnderſtand that they are to be knowne three ſeuerall wayes; firſt, by the Clyme and Continent wherein they lye; next, by their conſtitution and condition; and laſtly, by outward faces and Characters. By the Clyme and Continent, as when the ground lyes farre remote from the Sunne, or when it lyes mountainous and high, ſtony and rocky; or ſo neere vnto the skirts and borders of the Sea, that the continuall Fogges, Stormes, Myſts, and ill Vapours ariſing from thence, doe poyſon and ſtarue the earth: all which are moſt apparant ſignes of barrennesſe. By the Conſtitution and Condition, as when the ground is eyther too extreamely colde and moyſt, or elſe too violently

violently hot and dry; either of which produceth much hardneſſe to bring forth, and ſheweth the earth ſo lying, to be good for little or no profit. By the outward Faces and Characters, as when you ſee (in ſtead of Graſſe, which would be greene, flowry, and thicke growing) a pale thinne moſſie ſubſtance couer the earth, as moſt commonly is vpon all high Playnes, Heathes, Downes, and ſuch like: or when you ſee the ground couered with Heath, Lyng, Broome, Braken, Gorſe, or ſuch like, they be moſt apparent ſignes of infinite great barrenneſſe, as may be ſeene in many Mores, Forreſts, and other wild and woody places. And of theſe vnfertill places, you ſhall vnderſtand that it is the clay ground, which for the moſt part brings forth the Moſſe, the Broome, the Gorſe, and ſuch like: the Sand, which bringeth forth Brakes, Lyng, Heath; and the mixt earth, which vtters Whinnes, Briars, and a world of ſuch like vnnaturall and baſtardly Iſſues.

Thus hauing a true knowledge of the Nature and Condition of your ground, you ſhall then proceede to the ordering, earing, and dreſſing of the ſame, whereby it may not onely be purged and cleanſed from thoſe faults which hindred the increaſe thereof, but alſo ſo much bettered and refined, that the beſt ground may not boaſt of more ample increaſe, nor your more fruitfull placed neighbours exceede you in any thing, more then in a little eaſe.

Chap. 2.

Of the Ordering, Tilling, and Dreſsing of all ſorts of plaine barren Clayes, whether they be ſimple or compounded.

THou whom it hath pleaſed God to place vpon a barren and hard ſoyle, whoſe bread muſt euermore be grounded with ſweat and labour, that mayeſt nobly and victoriouſly boaſt the conqueſt of the Earth, hauing conquered Nature by altering Nature, and yet made Nature better then ſhe was before: thou I ſay that takeſt this honeſt delight in goodneſſe, hearken vnto theſe following Precepts.

The firſt enriching of barren Grounds.

As ſoone as thou haſt well pondered and conſidered the nature of thy ground, and doſt find that it is altogether barren and vnfruitfull, the clyme and condition not ſuffering it to bring foorth any thing of worth or profit, and that thou haſt well weighed what manner of Earth it is, as that namely it is either a ſimple Clay, or a Clay ſo mixt with other earths, that yet notwithſtanding the Clay is ſtill moſt predominant, thou ſhall then ſelect or chuſe out of this earth ſo much as to thy ſelfe ſhall ſeeme conuenient, it being anſwerable to the ſtrength of thy Teame, and the ability of thy purſe and labour to compaſſe; and this earth ſo choſen out, thou ſhalt about the beginning of *May*, in a faire ſeaſon, breake vp with a ſtrong Plough, ſuch as is generally vſed in all ſtrong cley grounds, the Share being rather long then broad, and the Colture rather ſomewhat bending then ſtreight and euen, according as the nature of the ground ſhall require, which euery ſimple Plough-man will ſoone finde out in turning vp two or three furrowes; for according to the cutting of the earth

earth ſo muſt the Husbandman faſhion the temper of his plough.

Now for the manner of plowing this bad and barren earth, if the ground lye free from water (which commonly all cold barren earths doe) you ſhall then throw downe your furrowes flat, and betwixt euery furrow you ſhall leaue a balke of earth halfe as broade as the furrow, and ſo goe ouer, and plow your whole earth vp, without making any difference or diſtinction of lands: but if you feare any annoyance of water, then you ſhall lay your furrowes more high, neere, and cloſe together, diuiding the ground into ſeuerall lands, and proportioning euery land to lye the higheſt in the midſt, ſo that the water may haue a deſcent or paſſage on either ſide. The manner of plowing.

Now ſo ſoone as you haue thus plowed vp your land, and turned all the ſwarth inward vnto the earth, you ſhall then take Hacks of yron, well ſteeled and reaſonable ſharpe, ſuch a competent number, as or your purſe or power can compaſſe, or the greatneſſe of your ground requireth, for you ſhall vnderſtand that one good hacker, being a luſty labourer, will at good eaſe hack or cut more then halfe an Acre of ground in a day; and with theſe hackes you ſhall hew and cut to peeces, all the earth formerly plowed vp, furrow by furrow, and not the furrowes onely, but alſo each ſeuerall balke that was left betweene, and any other greene ſwarth whatſoeuer the plough had eſcaped, and it ſhall be cut into as ſmall peeces as conueniently you can; for thereby is your mould made much more mellow and plentifull, and your ſeede at ſuch time as it is to be caſt into the earth, a great deale the better and ſafer couered, and much more ſooner made to ſproute and bring forth Hacking of Ground.

increaſe. Now for the ſhape and fathion of theſe Hacks, you ſhall behold it in this Figure.



When you haue thus hacked all your ground, and broke in peeces all hard cruſts and roughneſſe of the ſwarth; you ſhall then immediately, with all the conuenient ſpeed you can (becauſe time is very precious in theſe labours) if you be neere vnto any part of the Sea-coaſt, or to any other creeke or riuer, where the ſalt water hath a continuall recourſe, thence feteh (either on horſe-backe, or in cart, or other Tumbrill, ſuch as the nature of the Country, or your owne eaſe can affoord) great ſtore of the ſalt ſand, and with it couer your ground which hath bene formerly plowed and hackt, allowing vnto euery acre of ground, threeſcore or fourſcore full buſhels of ſand, which is a very good and competent proportion; and this ſand thus laid, ſhall be very well ſpread and mixed among the other hackt and broken earth. And herein it is to be noted, that not any other ſand but the ſalt is good or auaileable for this purpoſe, becauſe it is the brine and ſaltneſſe of the ſame which breedeth this fertility and fruitfulneſſe in the earth, choaking the growth of all weeds and bad things, which would ſpout from the earth, and giuing ſtrength, vigour, and comfort to all kind of graine or pulſe, or any fruit of better nature.

Standing of ground.

When you haue thus ſanded your earth, you ſhall then

then if you haue any Limeſtone about your grounds (as barren earth: are ſeldome without) or if you haue any quarries of ſtone (which are ſeldome vnaccompanied with Lime-ſtone) gather ſuch Lime-ſtone together, and make a kilne in the moſt conuenient place you haue, as well for the cariage of the Lime, as for the gathering together of the ſtone, and hauing burnt your Lime, the manner whereof is ſo generally well knowne through the whole Kingdome, that in this place it needeth little or no repetition; you ſhall then on euery Acre ſo formerly plowed, hackt, and ſanded, beſtow at leaſt forty, or elſe fifty buſhels of lime, ſpreading and mixing it exceedingly well with the other ſand and earth; and herein is to be noted, that the ſtronger and ſharper the Lime is, the better the earth will bee made thereby, and the greater increaſe and profit will iſſue from the ſame; neither ſhall you neede to reſpect the colour and complexion of the Lime, as whither it bee purely white (as that which is made from chalke) or gray (as that which is made from the ſmall Limeſtone) or elſe blackiſh browne (as that which is made from the great ſtone and maine Quarry) ſince it is the ſtrength and goodneſſe of the Lime, not the beauty and colour which brings forth the profits. Liming of ground.

Now that this Lime is of excellent vſe and wonderfull profit, doe but behold almoſt all the Countries of the Kingdome where there is any barrenneſſe, and you ſhall find and ſee how frequently Lime is vſed, in ſo much that of mine owne knowledge in ſome Countries where (in times paſt) there was one Buſhell made or vſed, there is now many loades, and all riſen from the profitable experience which men haue found in the ſame.

Meanuring of Ground.

Now, when you haue thus limed your ground, you shall then take of the best meanure you haue, as Oxe, Cowe, or Horse-dung, Straw rotted, either by the littering of Beastes, or by casting vpon High wayes; the mudde of Lakes, Pondes or Diches; the soyle of young Cattell made in the Winter time by feeding at stand Heakes, or any such like kinde of Ordure; and this meanure or compasse, you shall carry foorth either on Horse-backe, or in Carts or Tumbrels (according as the Countrey will affoord) and you shall laye it and spread it vpon your ground so formerly plowed, hackt, sanded, and lymed, in very plentifull manner, so farre foorth as your prouision will extend: for it is to be vnderstood, that barren and hard earths can neuer bee ouer-laded with good meanure or compasse, since it is onely the want of warmth and fatnesse, which meanure breedeth, and causeth all manner of fruitfulnesse.

Times for all labours.

After you haue thus meanured all your ground, it is to be supposed that the season of the yeare will be well shot on, for the labour of sanding will take little lesse then two monethes, your ground being of any indifferent great quantity, except you haue the assistance and helpe of many of your friendes, which is a courtesie that euery Husbandman may imbrace, but not trust vnto; for I would not wish any man that hath not Tenants to command, to presume on other friends, lest they faile him, and so his worke lye halfe done, and halfe vndone, which is a great Caracter of negligence and improuidence: but let euery one proportion their labours according to their owne strengths, and the number of their ordinary families. The lyming of your ground will take at least halfe so much time as the

sanding;

ſanding; and the meanuring rather more then leſſe then the lyming; ſo that by any reaſonable computation of time, beginning to plow your ground at the beginning of *May*, ere it be hackt, ſanded, limed, and meanured, *Michaelmas* will become, which is the end of *September*: for I allow the moneth of *May* to plowing and hacking; *Iune* and *Iuly*, for ſanding; *Auguſt* for lyming; and *September*, for meanuring. So then to proceede on with our labour, at *Michaelmas*, or from that time to the ende of *October*, you ſhall beginne to plow ouer that ground againe which formerly you had powed, hackt, ſanded, lymed and meanured; and at this latter plowing, you ſhall plow the ground ſomewhat deeper then you did before; and taking a good ſtitch (as they call it in Husbandry) you ſhall be ſure to raiſe vp the quicke earth, which had not bene ſtirred vp with the plow before, making your furrowes greater and deeper then formerly they were, and laying them cloſer and rounder together then they were before; and in this arder or latter earing, you ſhall be carefull to plow your ground as cleane as you can, without balkes or other eſcapes in Husbandry, and as you thus plow your ground, you ſhall haue certaine Hackers, with their hackes, to follow the Plowe, and to cut the earth and furrows into very ſmall peeces, as was formerly ſhewed in the hacking & cutting of the firſt ardor: then ſo ſoone as your ground is thus plowed and hackt, you ſhall take a paire or two of very ſtrong & good iron harrowes, and with them you ſhall go ouer your ground, tearing that which was formerly plowed & hackt into more ſmaller peeces then before, and raiſing vp the mould in much greater abundance then was formerly ſeene: which worke once finiſhed, you ſhall then

Second plowing.

Second hacking.

Firſt harrowing.

Of sowing the Seede.

then take your Seed which would be the fineſt, cleaneſt, and beſt Wheate you can prouide, and after the manner of good Husbandry, you ſhall ſowe it on the ground very plentifully, not ſtaruing the ground for want of Seed (which were a tyrannous penury) nor yet choking it with too much (which is as lauiſh a foolery) but giuing it the full due, leaue it to the earth and Gods bleſſing.

The ſecond harrowing.

Now ſo ſoone as you haue thus ſowen your Seede, forthwith you ſhall take all the Harrows againe, harrowing the Seede into the earth, and couering it cloſe and well with all care and diligence, and in this latter harrowing, you ſhall haue great reſpect to breake euery clot as much as you can, and ſo ſtirre vp and make as much mould as you can, and the finer ſuch mould is made, the better it is, ſo it couer deepe and cloſe; for you ſhall vnderſtand, that all theſe kind of barren Clayes, are naturally tough, cold, and binding, whereby they ſtifle and choke any thing that growes within them; for the naturall toughneſſe of the earth will not giue any thing leaue to ſprout, or if it doe ſprout, the binding nature thereof, ſo fetters and locks it within the mould, that it cannot iſſue out, or if it do (with extreame ſtrugling) riſe through the pores of the ſame, yet doth the cold preſently ſtarue the root and make the ſtemme vtterly vnable to bring forth fruite, or any profit at all, ſo that except the toughneſſe be conuerted to a gentle looſeneſſe and eaſie diuiding of it ſelfe, the coldneſſe vnto warmth, and the herd binding vnto a ſoft liberty, there can be ſmall hope of commodity which this manner of dreſſing the earth bringeth to paſſe; for the mixture of the ſand, takes away the toughneſſe; the Lime brings heate, and the meanure comfort and liberty: as

Faults in the earth.

for

for the hacking and cutting the earth, that is to make all the reſt ſimbolize and mixe together: for as if any Diſpenſatory, make a medicine, and caſt his ingredians confuſedly one vpon another, without care of mixture, melting or diſſolution, ſhall find but a corrupt, piſorderly, and ill compounded receit; ſo he that dreſſeth and manureth his ground, and doth not by hacking, plowing, or ſome other husbandly courſe, mixe the earth and the compaſſe perfectly well together, ſhall ſeldome find profit from his ſeede, or finde any man of wit deſirous to become his imitator. Now I muſt confeſſe, that ſome eaſie grounds of light and temperate nature, will mixe very well and ſufficiently by the helpe of the Plough onely; but this barren hard earth of which I now write, muſt onely be broken by this violent and extreame labour, or elſe there will neither be mould, earth, nor any other couerture for the ſeed, but onely foule, great and diſorderly clots and lumps, through which the graine can neuer paſſe, and that which lieth vncouered will be made a prey to fowle and other vermine which will hourely deſtroy it.

After you haue ſowen and harrowed the ground, you ſhall then ſee if there remaine any clots or hard lumps of earth vnbroken, which the teeth of the Harrowes are not able to teare in pieces (as it is very likely you ſhall perceiue many) for theſe hard barren earthes which are plowed vp in their greene ſwarthes, are nothing neere ſo eaſily broken and brought to mould, as are the mellow ſoft earths which haue beene formerly plowed many times before, becauſe the hard and intricate roots of the Graſſe, Moſſe, and other quicke ſubſtances growing vpon the ſame doth binde and hold the the mould ſo cloſe and faſt together, beſides the natu-

Of clotting Ground.

rall

rall ſtrength and hardneſſe of the earth, that without much induſtrious and painefull labour, it is impoſſible to bring it to that fineneſſe of mould which Art and good Husbandry requireth, therefore, as ſoone as you behold thoſe clots and lumps to lye vndiſſeuered and vnbroken, you ſhall forthwith take good ſtrong clotting beetles, or maules made of hard and very ſound wood according to this proportion of this figure.

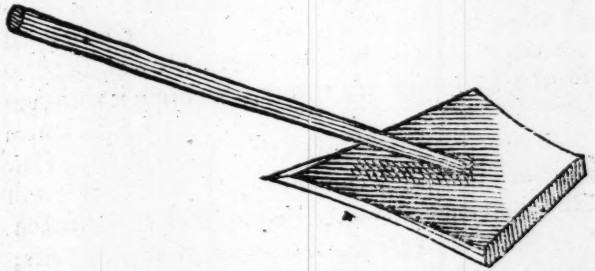


And with theſe maules or clotting beetles, you ſhall breake all the hard clots and lumps of earth in pieces euen to ſo ſmall duſt, as poſſibly you can; becauſe you are to preſuppoſe, that theſe clots thus hard, tough, and vnwilling to be with any meanes digeſted into mould, are either not at all, or elſe very inſufficiently mixed with the Sand, Lime and other meanures: and therefore you muſt rather breake them, that thereby they may mixe, and giue eaſie paſſage to the graine, and not like heauy poyſes and dead lumps lie and preſſe downe the Seede ſo that it cannot ſprout.

Another manner of clotting.

But if it ſo fall out that partly by the hardneſſe of the ill earth, partly through the ſeaſon and dryneſſe of the yeare, that theſe clots and lumpes of earth will either not be broken at all, or at leaſt ſo inſufficiently that the mould will not be any thing neere ſo fine as you would haue it; you ſhall then hauing done your beſt indeuour, let

let your ground reſt till there haue falne a good ground ſhower or two of raine, which may wet the clots through and through; and then the next faire blaſt, you ſhall take your clotting beetles, but not thoſe which you tooke before in the dry ſeaſon, but ſome much lighter, broader and flatter, being made of thicke Aſh-boords more then a foot ſquare, and aboue two inches in thickneſſe, according to this figure.



And with theſe flat maules and beetles, you ſhall breake all the vnbroken clots and lumps of earth which ſhall trouble or annoy your ground, making your Lands as plaine and ſmooth as is poſſible, ſo that the graine may haue eaſie paſſage forth; which labour as ſoone as you haue finiſhed, you ſhall then referre the increaſe and proſperity thereof vnto the mercies of God, who no doubt will giue his bleſſings according to thy labaur and thankefulneſſe.

As touching the trimming and weeding of this Corne, after it is ſprung a foot aboue the earth, or thereabouts, you ſhall vnderſtand, that theſe hard barren grounds are very ſeldome troubled with weeds; for weeds, eſpecially great, ſtrong, and offenſiue weeds are the iſſues of rich and fertile ſoyles; yet, if through the trimming *Of weeding.*

trimming and making of this earth (which is not commonly seene) you doe perceiue any store of thystles, or other grosser weeds to spring vp, you shall then in the moneth of *May*, with hookes, nippers, and such like tooles, cut them away or pull them vp by the rootes, which indeed is the better manner of weeding.

Seuerall seeds seuerall yeares.

Now here is to be vnderstood, that your ground being thus dressed and trimmed as is before shewed, you may very well for the first two yeares sowe Wheate or Rye vpon it, but Wheate is the greater profit and more certaine seed; the third yeere bestowing but your fold of Sheepe vpon it, that is, meanuring it with your sheepe, (for it is to be intended, that in these barren earths sheepe are the greatest stocke of which the Husbandman can boast) you may very well sowe it with barley, and haue a fruitfull and plentifull crop thereon the next three yeares, you may sow it with Oates; and the seuenth yeare you may sowe it with small white Garden Peale or Beanes, according as you shall finde the strength and goodnesse of the ground, (for Beanes desire somewhat a richer soyle then the Peale) then for three or foure yeares following the seuen, you may let it lie at rest for grasse, and doubtlesse it will yeeld you either as good pasture, or as good Medow as you can reasonably require. And then after the expence of this time, it shall bee good that you dresse and order your ground againe in such sort as was formerly declared; and thus you may euery yeare dresse one or other piece of ground, till you haue gone ouer all your ground, or at least as much as you shall thinke expedient; and without faile, he that is Master of the most fruitfullest and richest soyle, shall not boast of any greater increase then you shall, onely your charge

may

may be a little more, and ſo ſhall be alſo your commodity, which ſhall make an amends for your charge; as for your toyles, yours ſhall be much the leſſe, by a iuſt computation; for though you haue many labours, yet they are but Summer labours, and neither hurt your owne body, nor your Cattell: whereas the Maſter of the rich ſoile is in continuall worke both Winter and Summer, labouring twice ſo much to confound the ſuperfluous growth of weeds as you doe to beget the increaſe of Corne; and whereas he muſt euer keepe a third or fourth part of his Corne-ground without fruit, you ſhall not keepe any which ſhall not yeeld you a ſufficient commodity.

Now me thinkes I heare in this place, to be obiected vnto me, that whereas I doe preſcribe the ſanding of theſe barren Earths with the ſalt Sea-ſand, and no other (as it is true, for all other freſh ſand is vnaualeable) what if the ground doe lie ſo farre within the Land, that there is no ſalt ſand within many ſcore miles of it, how then ſhall I make good my barren earth; ſure to fetch ſand ſo farre, will neuer equall the coſt, or it may be this experience hath no further limits then to ſuch hard and barren earths as lye alongſt the Sea-coaſt onely. Obiection.

To this I anſwere, that al-be this ſalt Sea-ſand be of infinite good and neceſſarie vſe, inriching grounds wonderfully much, yet is not this experience of bettering of barren ſoiles, ſo ſtrictly bound thereunto, but that without any vſe of the ſame, you may make your earth as fruitfull in Corne or Graſſe, as hath beene already formerly declared. Anſwer.

Therefore if your ground lye much within the Land, and farre from the Sea, ſo that this commodity.

of

Ordering Earth where ſands wanteth.

of ſand is not by any poſſible meanes to be gotten, then you ſhall (hauing firſt looſt into the nature of your ground, and finding it to be by all characters and faces a cold, barren, ſtiffe, dry Clay, yeelding nothing but a ſhort moſſie graſſe, without any other burthen at all as is ſeene vpon moſt Plaines, and Downes of this Kingdome) firſt plow it and hacke it as was before ſhewed in the former part of this Chapter, then inſtead of ſanding it, you ſhall lime it as before ſaid, or rather a little more plentifully, then you ſhall meaſure it, after (as at ſeede time) you ſhall plow it and hacke it againe, then harrow it as before ſaid; then to euery aker of ground, you ſhall take two buſhels of very dry bay ſalt, and in ſuch manner as you ſowe your Wheate, you ſhall ſowe this ſalt vpon the ground, then immediatly after the ſowing of the ſalt, you ſhall ſowe your Wheat, which Wheate would be thus prepared before you ſow it; the day before you are to ſowe your graine, you ſhall take Bay ſalt and water, and mixing them together make a brine ſo ſtrong that it will beare an egge, then put the Wheate you are to ſowe into that brine, and let it ſteepe therein till the next day, then draine it as cleane as may bee from the brine, and ſo ſow it, harrow it, clot it, and weede it, as was before declared, and no doubt but you ſhall finde a marualious great increaſe thereby. for this I can aſſure you, both from a moſt certaine knowledge, and a moſt worthy relation, that a Gentleman buying ſome ſtore of ſeed-Wheate, and inforſt to bring it home by Sea, by ſome caſuall meanes ſome of the ſacks at the vnlading, fell into the Sea, and were much drencht in the ſalt water, whereat the Gentleman being grieued (as doubting ſome hurt to come to the ſeed) yet inforſt of neceſſity

Sowing of Salt.

The excellency of Salt.

to

to make vſe thereof, cauſed all the Wheat which was ſo wet to be ſowen by it ſelfe in a particular place, and vpon the worſt ground which he had, (as much diſpairing in the increaſe thereof) and it is moſt infallibly true, that of that wet Seed, he receiued at leaſt fiue-fold more profit then of any other, and from thence it came, that this experiment of Brine and the ſowing of ſalt hath taken place; from which the painfull husbandman hath found ſuch infinite increaſe to ariſe, that the vſe thereof will neuer be layed downe in this Kingdome, neither is the thing in it ſelfe, without good and ſtrong probability of much increaſe and ſtrength for the bettering of all manner of earable grounds; for there is nothing which killeth weedes, quicks, and other offences of the ground ſo much as ſaltneſſe: for what makes your Pigeons dung and your Pullens dung to be better for earable grounds then any other dung or meanure whatſoeuer, but by reaſon of the ſaltneſſe thereof, by which ſaltneſſe alſo, you may iudge the ſtrength and heat therof, inſomuch that the proper taſte of fire, or any hot thing is euer ſalt; alſo we ſay in Phyloſophy, that blood which carieth the vitall heat and warmth of the body, is in taſte ſalt, and ſo a nouriſher, maintainer, and increaſer of all the ſtrength and vigour of the inward faculties; whereas Fleame, Choller, and Melancholly, which are the hurts and confounders of the vitall ſpirits; the firſt is in taſte ſweete; the ſecond bitter, and the laſt of an earthy and dry taſte, full of much loathſomeneſſe.

Now againe you ſhall vnderſtand, that as you thus wet or ſteepe your Wheat ſeede, ſo you may alſo ſteepe any other ſeede, as Barley, Oates, Beanes, Peaſe, Lupins, Fetches, Of ſteeping Seed in brine.

Fetches, and ſuch like; of which, your Beanes, Peaſe, and Lupins, you may ſteepe more then any of the reſt, and your Oates the leaſt.

As touching Rye, it ſhall be good not to ſteepe it all, for it is a great enemy to all manner of wet and moyſture, in ſo much, that the curious Husband-man will forbeare to ſow it in any great ſhower of raine, bearing in his minde this auncient addage or ſaying, that *Rye will drowne in the Hopper*: as on the contrary part, *Wheate would be ſowen ſo moyſt, that it might ſticke to the Hopper*; yet notwithſtanding, when you doe ſowe Rye in any of theſe In-land and cold barren Countries, where ſand is not to bee gotten, you ſhall not by any meanes omit the ſowing of your ſalt before, for it is nothing neere ſo moyſt as it is warme and comfortable.

Chap. 3.

Of the ordering, Tylling and Dreſſing of all rough Barren Clayes, whether ſimple or compound, being laden and ouer-runne with Gorſſe, Broome, and ſuch like.

NExt vnto theſe plaine barren earths, which by reaſon of their heights, are ſubiect in the Winter time to all manner of cold, froſts, ſtormes, tempeſts, blaſts, and winds, which are the perfect hinderers of all increaſe and growth; and in the Sommer time to all hot ſcorchings, ſcaldings, and fiery reflections of the Sunne, which on the contrary part, burneth and withereth away, that little ſeemeth increaſe which appeareth aboue the earth: I will place that barren clay, whether it be mixt or vnmixt, which lying not ſo high, and being ſubiect vnto thoſe hurts and offences, ſeemeth to

be

be a little more fruitefull, yet either by the extreame cold moyſture thereof, or the ſtony hardneſſe, and other malignant qualities, is no leſſe barren then that of which I haue formerly written, which indeede is that barren and vilde ſoile, which will neither beare corne nor graſſe, but is onely ouer-run and quite couered ouer with great, thicke, and tall buſhes of Gorſe or Furs, which is a moſt ſharpe, woody, and groſſe weed; ſo full of prickes, that neither Horſe, Beaſt, Sheepe, nor Goares dare thruſt their noſes to the ground to gather vp that little poore graſſe which groweth thereon: And al-be theſe Gorſe, or Furres, are one way a little commodity to the needefull Husband-man, in being a reaſonable good fuell, either for baking, brewing, or diuerſe other ſuddaine and neceſſary vſes; yet, in as much as the profit being compared with the great quantity of earth which they couer and deſtroy, and which with good Husbandry might be brought to great fruitfulneſſe, is indeede no profit at all; it ſhall not be amiſſe for euery good Husband-man that is peſtered and ouer laden with ſuch ground, to ſeeke by way of good Husbandry how to reduece and bring it to that perfection and excellencie which may be beſt for his owne particular commoditie, and the generall good of the Kingdome wherein he liueth.

Then is there another kind of ſoyle which is nothing at all differing from this, but is euery way as barren and ſterile, which is that ground which is ouer-runne with broome (which is as noyſome a weed as the former) and though it haue not ſuch ſharp prickles as the other, whereby to hinder the grazing of Cattell; yet doth it growe ſo cloſe and thicke together, and is naturally ſo poyſonous and offenſiue to graſſe, that you ſhall ſeldome

dome ſee any grow where this Broome proſpereth; beſides the bitterneſſe thereof is ſo vnpleaſant and diſtaſtfull to all kind of cattell, that not any will euer crop or bite vpon the ſame, onely it is of ſome neceſſary vſe for the poore husbandman, in reſpect that it ſerueth him both for fuell, for thatching and the couering of his houſes, (being for that purpoſe, of all, the longeſt laſting) and alſo for the making of Beeſomes for cleanſing of the houſe and barnes, or elſe for ſale and commodity in the market; all which profits (as before I ſaid) being compared with the loſſe of the ground, and the goodneſſe that might be reaped from the ſame, are indeed truely no profits but hinderances.

Therefore I would wiſh euery man that is Maſter of ſuch grounds, whether they be ouerrunne with Gorſe, Furres, Broome, or any ſuch kind of groſſe, woody, or ſubſtantiall weede: firſt, to cut vp the weed (of what ſort ſoeuer it be) whether Gorſe, Furres, or Broome) as cloſe and neere vnto the ground as you can poſſibly, and then making vp them into ſheafes or bigge faggots, carry them home and ſtacke them vp very dry, ſo as no raine may enter or pierce into them, for the ſmalleſt wet will rot and conſume them to dirt and filthineſſe; which done, you ſhall make Labourers with hacks, pickes, and ſuch like tooles, to ſtubbe vp all the rootes which you left in the ground, euen to the very bottome of the ſame; and theſe rootes you ſhall be very carefull to haue ſtubbed vp exceeding cleane, by no meanes leauing (ſo neere as you can) any part or parcell of the rootes behinde you; then thoſe rootes thus ſtubbed vp, you ſhall diligently gather together into little heapes as bigge as Moale-hilles,

Deſtroying of weeds.

hilles, and place them vpon the ground a pretty diſtance one from another, and ſo let them lye till the Sunne and winde haue dried them: for it is to be intended, that this labour muſt begin about the latter end of *Aprill*, and beginning of *May*.

Then ſo ſoone as you find theſe rootes are thorowly dried, you ſhall pile them handſomely together, laying them a little hollow one from another, and then with a hacke cut vp ſome of the ſame earth, and therewithall couer all the rootes quite ouer, onely leauing a vent hole at the top, and on one ſide, and ſo let the hils reſt two or three dayes, till the earth bee a little parcht and dried, then take fire and ſome other light dry fuell which is apteſt to blaze, and with the ſame kindle euery hill, not leauing them till you ſee them perfectly on fire: which done, let them burne both day and night, till the ſubſtance being wholly conſumed, the fire go out of it owne ſelfe, and this in ſome Countries is called the *Burning of Baite*. Burning of baite.

Now as ſoone as the fire hath beene extinguiſhed for two or three dayes, you ſhall then come, and with ſhouels (and beetles to breake the hard burnt earth in peeces) you ſhall ſpread all the aſhes cleane ouer the ground; which done, you ſhall with a very long plow teare vp the earth into great and deepe furrowes, and diuide it into Lands, as you ſhall thinke meete and conuenient, laying them higher, or flatter, as you ſhall haue occaſion, and as the ground lyeth more or leſſe within the daunger of water, whether it be the ouer-flowing of ſome neere neighbouring Brookes or Riuers, or elſe other ſtanding Water occaſioned by Raine and extraordinary Showers, which muſt be carefully lookt vnto, becauſe all ouer-flowes and inundati- Breaking of the burnt earth

Cauſes of vnfruitfulneſſe.

Causes of vnfruitfulneſſe.

on of water, is a mighty deſtroyer and conſumer of graine: but theſe barren grounds of which I now write, are very ſeldome oppreſt with water; for moſt commonly they lie ſo high, that the continuall dryneſſe thereof, is a ſtrong occaſion of the much vnfruitfulneſſe. After you haue thus burnt your baite, and plowed vp your ground, you ſhall then with your hackes hacke it into ſmall pieces, in ſuch manner as was declared in the former Chapter; then you ſhall (if the Sea be any thing neere you) ſand it with ſalt ſand (as before ſaid) then lime it, and after, meanure it either with Oxe dung, Horſe dung, rotten Straw, mudde of Ponds and Ditches, the ſpiteling of Houſe-floores, or ſweepings of Channels and Streets, or ſuch like, or for want of all theſe in caſe you dwell neere vnto the Sea-coaſt (where meanure for the moſt part is in greateſt ſcarcity, and the hardeſt to be come by) you ſhall gather from the bottome of the rockes (where the ſeydge of the Sea continually beateth) a certaine blacke weede, which they call Hempe-weede, hauing great broad leaues, and growing in great abundance, in thick tufts, and hanging together like Peaſe ſtraw; and with theſe weeds, you ſhall couer your lands all ouer of a pretty good thicknеſſe, and then forthwith you ſhall plow it againe ſomewhat deeper, and with ſomewhat greater furrowes then before, raiſing vp the new quicke earth to intermingle and mixe with thoſe meanures and helps which you had formerly prepared and laid vp on the ground; then ſhall you againe hacke it and harrow it; then ſhall you take Pigeons dung, or Pullens dung (that is, any kind of land fowle whatſoeuer, but by no meanes any water-fowle) or Pigeons dung and Pullens dung mixt together, and allowing

An excellent meanure.

Of Plowing.

Of diuers meanures.

lowing to euery aker two or three buſhels thereof, which is the true quantity of ſeede proportioned for the ſome, and this dung being broken and maſht into ſmall pieces, you ſhall put into your Sydlop or Hopper, and in the ſame manner as you ſow your corne, you ſhall ſowe this dung vpon the ground, and then immediatly after it, you ſhall ſowe your Wheate either ſteept in brine, or elſe ſalt Sea-water, or vnſteept, as you ſhall thinke good, but in caſe you can neither get ſalt ſand nor Sea-Rocke-weedes, then you ſhall by no meanes omit the ſteeping of your Seede; neither ſhall you faile before you ſowe your Seede, to mixe with your Pigeons and Pullens dung, a full equall part of Bay-ſalt well dried and broke, and ſo ſowen with the dung vpon the land, and then the ſeede after it; which done, you ſhall harrow it againe, clot it, ſleight it, and ſmoth it, in ſuch ſort as was formerly declared in the former Chapter, for theſe labours haue no alterations, but muſt in all points bee done as was before ſet downe. Mixture of meanures.

Now touching the weeding of this earth, after the Corne beginneth to grow aboue the ground, there is no feare to be had either of Thiſtles, Tares, Cockles, Darnell, Dockes, and ſuch like ſtrong weedes, which indeed are the iſſues of good grounds ill ordered and handled: but the weeds which you ſhall moſt feare in this place, is young Gorſe, or Furs, or elſe young Broome, which are very apt to grow from the leaſt part or parcell of roots that ſhall be left behind; nay the very nature of thoſe barren earths is ſuch, that of its owne accord it will bring forth thoſe weedes, the cold ſharpneſſe of the ayre mixing with the ſterility and roughneſſe of the earth, being the cauſe that it will giue Of weeding.

life to no other better plants; therefore ſo ſoone as you ſhall behold any of them to appeare aboue the earth, though they be not halfe a finger high, you ſhall preſently with all diligence, pull them vp by the roots and caſt them away, or lay them in heapes that they may be afterwards burnt, and the aſhes ſprinkled vpon the ground: and herein is to be obſerued, that the younger and the ſooner that you do pull vp theſe weeds, the better it is, and the eaſilier they will come from the earth, and the ſooner be deſtroyed: for all thoſe mixtures wherewith already you haue beene taught to mixe your earth, are in themſelues ſuch naturall enemies to all theſe kind of barren weeds, that ſhould you omit the manuall labour of deſtroying them (which no good husband willingly will do) yet in time the earth of it ſelfe, and the often plowing of the ſame would leaue no ſuch offence of weeds or other growths which might hinder the Corne.

Time for weeding.

Now touching the beſt time when to pull away theſe weeds, though generally it muſt be done aſſoone as they do appeare aboue the ground; yet it ſhall not be amiſſe for you to deferre the worke till after a ſhower of raine, and then immediately after the ground is wet (and ſo by that meanes more apt and willing to open and forſake the roots faſtned within it you ſhall with all diligence pull them out of the ground, and deſtroy them: neither ſhall you pull them out of the ground with your hands onely; for the Gorſe haue exceeding ſharpe pricks, ſo that with your naked hands you are not able to touch them, and to arme your hands, againſt them, with ſtrong thicke gloues, would be to boiſtrous and comberſome, ſo that ſometimes you might either miſſe the weedes, and pull vp the

Corne;

Corne; or elſe pull vp the Corne and weeds both together; therefore to preuent all theſe caſualties or hinderances, you ſhall take a paire of long ſmall wooden Nippers, made after the forme of this figure.



And with theſe you ſhall pull the weeds out of the ground, and caſt them into the furrowes by the ſides of the Lands, till your daies worke be finiſhed, and then with a rake you ſhall rake them together, and ſo lay them in heapes, to dry and wither, in more conuenient places, that when time ſhall ſerue, you may burne them, and vſe them, as was before declared.

Gathering of ſtones.

Laſtly you ſhall haue great reſpect, that if this ground be very much troubled with looſe ſtones, as flint, pibble, and ſuch like, that then you very carefully get them gathered from the ground, both before and after you haue plowed it, and to lay them on heapes in other vacant places, where they may ſerue for pauings, and ſuch like purpoſes when time requireth: but if the ground be ouer-run with great or elſe ſmall lime-ſtones, as for the moſt part theſe barren grounds are; then ſhall you with all care gather them vp, and lay them in great heaps in ſome corner of your field where you may make a conuenient lime-kilne, and ſo there burne theſe ſtones thus gathered, which will be both an infinit profit, and an infinit eaſe to the reſt of your labours.

CHAP.

Chap. 4.

Of the Ordering, Tilling, and dreſsing of all rough barren Clayes, whether ſimple or compound, that are ouer-runne with Whinnes, and ſuch like.

NExt vnto this barren Claye which is ouer-runne with Furres, Broome, and ſuch like, I will place that barren and vnfertile earth, being alſo a Claye, whither ſimple or compound, which is ouer-runne onely with Whinnes, and indeede bearing little or no other burthen, or if it doe beare any other burthen, as ſome little ſhort moſſie graſſe, yet is that graſſe ſo couered ouer with theſe ſharpe Whinnes, that not any beaſt dare put his noſe to the ground, or bite vpon the ſame; and indeede, this kinde of earth is not any whit at all leſſe barren then thoſe of which I haue already written: but rather more, in that the malignant qualities thereof are not ſo ſoone corrected, nor yet the vertues ſo ſoone reſtored

What whinnes are.

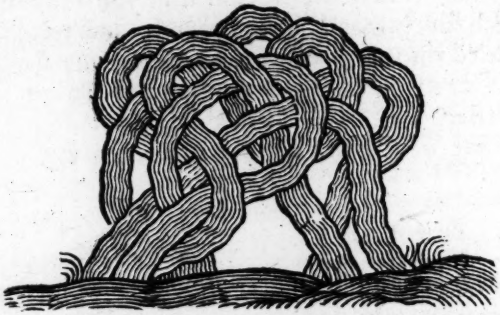
Whinnes are a certaine kinde of rough dry weedes, which grow buſhie and thicke together, very ſhort, and cloſe vnto the ground, being of a darke browne colour, and of crooked growth, thicke and confuſed, and full of knots, and thoſe knots armed with hard, long, ſharpe prickes, like thornes or bryars, they haue little browne leaues which ſhaddow the prickes, and doe winde their branches ſo one into another, that they can hardly be ſeparated, yet is their growth at any time little more then a handfull aboue the earth, onely they ſpread exceedingly, and will runne and couer ouer a whole field, choaking vp all ſorts of good plants whatſoeuer,

ſoeuer, and turning the beſt graſſe that is to moſſe, and filthineſſe, wherefore if at any time you be Maiſter of any ſuch naughtie and barren ground, and would haue it reduced vnto goodneſſe and fertility, you ſhall firſt take a fine thinne paring-ſhouell made of the beſt yron, and well ſteeled, and hardened round about the edges, according to the forme of this figure following.



And with this paring-ſhouell, you ſhall firſt pare vp all the vpper ſwarth of the ground, about two inches, or an inch and a halfe thicke at the leaſt, and euery paring would be ſome three foote in length at the leaſt, and ſo broad as the ſhouell will conueniently giue it leaue, and this ſwarth thus pared vp, you ſhall firſt turne the Whinny or graſſe ſide downeward, and the earth ſide vpward, and ſo let it lye two or three dayes in the Sunne to dry (for this worke is intended to beginne in the moneth of *May*) and when that ſide is well dried, you ſhall turne the other ſide, and dry it alſo, then when all the ſwarth is dryed, you ſhall gather ſixe or ſeuen peeces together, and turning the Whinny or graſſe ſide inward, and the earth ſide outward, you ſhall make round, hollow little hils thereof much what according to the faſhion of this figure following:

And



And the inward hollowneſſe like vnto the hollowneſſe of an Ouen, but much leſſe in compaſſe, which done, you ſhall fill the hollowneſſe with dry chips, or ſmall ſtickes, or Furres and Straw mixed together, which you ſhall put in at the vent-hole which ſhall be left on one ſide of the hill, and kindling it with fire, you ſhall burne all that ſwarth in ſuch ſort as you burnt the rootes of your Furres and Broome before; for this is alſo called a burning of Baine, as well as the former; for it is a moſt principall nouriſher of the earth, and a very ſudden deſtroyer of all malignant weedes whatſoeuer.

Breaking of Baites.

After the burning of your hils, as ſoone as the fire is vtterly quenched and gone out, and no heate at all left in the hilles, you ſhall then with clotting beetles beate them all downe to duſt, and then with ſhouels you ſhall ſpread the aſhes quite ouer all the ground, as was before declared in the former Chapter: and herein is to be noted, that you muſt place theſe hils as thicke and cloſe together as by any meanes poſſibly you can, making your hils ſo much the leſſe and lower, that

that they may ſtand thicker and neerer together, and ſo couer more ground, and thereby the heate and ſtrength of the fire to diſperſe it ſelfe ouer all that peece of ground; for the fire burning vpon the ground, doth as much good for the inriching of the earth, and deſtroying of the weeds, as the aſhes doth which are ſpread vpon the ſame.

Now after your bayte is in this manner burned and ſpread, you ſhall then (as was before ſhewed) plowe vp your ground in good large furrowes, then hacke it very ſmall, ſand it, lime it, and meanure it; and of all meanures, there is not any better for this ground then Oxe-dung and aſhes well mixt together; of which aſhes, thoſe of Beane ſtraw, Peaſe-ſtraw, or any other ſtraw, are beſt; and thoſe of Wood or Ferne next, thoſe of Char-coale next, and thoſe of Sea-coale or Pit-coale are the worſt of all: Swines dung is not much amiſſe for this ground; for though it be a great breeder of weedes and thyſtles in good or fertile grounds, yet in this cold hard and barren earth it worketh no ſuch effect, but is a great comforter, and warme moyſtner of the ſame. Plowing.

After you haue thus made your ground; as ſoone as wheate ſeede-time commeth, which is the latter ende of *September*, and beginning of *October*, you ſhall then with great care plow ouer your ground againe, and take great reſpect that you turne vp your furrowes much deeper then before, and that for two eſpeciall cauſes; the firſt, that the new earth may the better mixe with the old earth, and thoſe helpes that are added thereunto; and ſecondly, that you may be ſure to teare vp the rootes of all the Whinnes from the very bottome of the earth, not ſuffering any part of them to remaine behind,

behinde: and for this pupoſe it ſhall not be amiſſe to haue an idle Boy or two to follow your plow, and to gather away all the rootes that ſhall be torne vp, or any way elſe left bare aboue ground, which roots ſhall be laid on heapes in conuenient places, and then after burnt, and the aſhes thereof ſpread vpon the ground, which will be a very great comfort vnto the ſeed, being a ſpeedy helpe vnto the ſprouting thereof, and a very warme comforter of the root after the ſtemme is ſpindled aboue ground, for in theſe cold barren earths, nothing doth ſo much ſpoyle and ſlay the Corne, as the dead coldneſſe which lyeth at the roote thereof; for in many of theſe vnfertill places, you ſhall ſee Corne at the firſt ſowing (whileſt there is a little ſtrength in the ground) ſprout in great abundance, promiſing much hope of the profit; but when it ſhould ſpindle and come to much better perfection, that poore ſtrength being ſpent and conſumed, and the cold and dryneſſe of the ſoyle, hauing as it were ouercome all matter of comfort, then preſently you ſhall ſee the blade of the Corne turne yellow, the ſtem or ſtalke to wither, and either put forth no eare at all, or elſe a very poore little empty one, being laden with nothing but a moſt dry chaffie huske without ſubſtance. But to come againe to our purpoſe, after you haue thus plowed vp your ground the ſecond time, you ſhall then hacke it againe, and harrow it, as was declared in the other former Chapters; then you ſhall take your ſeede-wheate which hath beene ſteept either in brine or Sea water, and to euery buſhell of that ſeede, you ſhall adde a buſhell of Bay ſalt, and mixe them very well together in your Hopper or Sydſop, and ſo ſowe them together vpon the ground, obſeruing

ſeruing to double your caſts ſo oft, that you may not faile to caſt that true quantity of ſeed into the earth which otherwiſe you would haue done if ſo be there had beene no mixture at all, for to doe otherwiſe were to deceiue the ground, and a handfull of ſeede ſo ſaued, would be the loſſe of a pecke in the time of Harueſt; therefore haue great reſpect that your ground haue his due, for it is no more coſt though it be a little labour.

When your ſeed is ſowen, you ſhall harrow it againe the ſecond time, clot it, ſmooth it, and ſleight it, as was before declared in the former Chapters. Harrowing.

As touching the weeding of this ground, it is the leaſt labour of all other, for the earth being ſo corrected as is before ſhewed, it will naturally of it ſelfe put forth no weeds, eſpecially if you remember to plow it deepe, and be ſure to teare vp and gather away all the quicke roots, otherwiſe if that labour be any thing neglected, then will it put forth both Whinnes, and great ſtore of other rough weeds, which as ſoone as you ſhall perceiue to appeare, you ſhall preſently with your wooden Nippers pull them vp by the roots, as was at large declared in the foregoing Chapter. Weeding.

Now for the generall profit of this ground thus made and prepared, it is the ſame that the two former are, that is to ſay, it will beare you good and ſufficient Wheate, in plentifull abundance for the ſpace of two or three yeares, then Barley a yeare after; then Oates three yeares together after the Barley; and Peaſe or Beanes a yeare after the Oates; then laſtly, very good Meadow or Paſture, for the ſpace of three or foure years after, and then you ſhall begin and dreſſe it againe, as was formerly declared. Profits.

CHAP.

Chap. 5.

Of the Ordering, Tilling, and Dreſsing of all barren Clayes, whether ſimple or elſe compound, which are ouer-runne with Ling, or Heath.

THere followeth now ſucceſſiuely, another ſort of barren earth, which indeede is much more ſterile and barren then any of the other formerly written vpon, becauſe they, out of their owne natures, do beare a certaine kind of graſſe or foode which will relieue ordinary, hard, ſtore-cattell, whether it bee ſheepe, goates, or young beaſts. But this earth of which I am now to intreate, beareth no graſſe at all, but onely a vilde, filthy, blacke browne weede, which wee call Ling or Heath, the tender tops whereof Cattell and wilde Deere will ſometimes crop, yet it is to them but little reliefe, and onely maintaineth life and no more. Now al-be ſome may obiect vnto me, that this kind of ſoyle is euer a ſandy ſoile and no clay, as may be ſeene in moſt chaſes, forreſts, and downes: yet I anſwer, that al be it hold ſo in generall, yet there are diuerſe clayes, eſpecially in mountainous countries, that are peſtered with theſe kind of weedes, as may be ſeene in the north and north weſt parts of *Deuon-ſheire*, in ſome parts of *Corne-wall*, and in many parts both of North and South *Wales*; and theſe clay grounds which are thus offended with theſe weedes of Ling or Heath, are much more barren and vnfruitfull then the ſands, becauſe of their much more coldneſſe; yet thoſe clayes which are mixed with either blacke ſand, dun ſand, or yellow ſand, and ouer-runne thus with Heath or Lyng, are the moſt barren of all: to make any further deſcription of this

Heath

Heath or Lyng, being a thing ſo notoriouſly knowne ouer all this Kingdome, I held it meerely needleſſe, onely to ſay it is a rough browne weede, ſhooting out abundance of ſtalkes from one root, with little darke leaues, and flowers on the toppe, of a pale reddiſh colour, much inclining vnto Peach colour at the firſt, but being full blowne, they are then a little more whitiſh.

Deſtroying of Heath.

You therefore that haue any ſuch ground, and deſire to bring it to fruitfulneſſe, and the bearing of good corne and graſſe in a reaſonable abundance; you ſhall firſt with ſythes or ſharpe hookes (but old ſythes are the better) cut downe all the Heath, or Lyng which groweth vpon the earth you intend to conuert to goodnes, ſo neere the ground as poſſibly you can; then when it is cut downe (which would euer be at the beginning of the Moneth of *May*) you ſhall let it lye vpon the ground, dayly toſſing and turning it till it become very dry, then ſpreading it all ouer the ground, and mixing or couering it with dry ſtraw of any kinde whatſoeuer, you ſhall preſently ſet it on fire in ſo many ſeuerall corners of the field, that all the ſeuerall fires in the end may meete in one point, and not leaue any part of the mowen Heath or Lyng vnburnt, or any part of the ground vnſcorched; after this is done, and the ground cooled, you ſhall with your flat clotting beetles beate the aſhes, hard into the ground, then you ſhall take a ſtrong plow, with a broad winged ſhare, and an euen colture, and you ſhall plow vp all this ground thus burnt, in very large and deepe furrowes, by no meanes picking out any of the quicke roots which ſhall remaine in the furrowes ſo turned vp, but letting them reſt in the earth ſtill, then with your hacks, and the helue of your iron paring ſhouell, you ſhall cut vp the furrowes,

rowes, formerly turned vp, into short pieces of three foot, or three foot and a halfe long, and some lesse, as occasion shall serue; then with these pieces, you shall build little hollow hills, such as in the former Chapter you made of the vpper swarth of the ground only; and then filling the hollownesse with dry heath, and dry straw mixt together, you shall set euery hill on fire, and so burne the very substance of the earth into ashes, which will soone be done by reason of the infinit number of roots and small strings which lye mixt in the earth, and the dryenesse thereof occasioned by the former burning: And this is another kind of burning of Baite much differing from all the former, and yet to as great end and profit as any whatsoeuer, and these hills must as the former, be placed one as neere another as is possible, so as they may spread and couer ouer the greatest part of the ground, and leauing no more then a good reasonable path to passe betweene hill and hill.

Another burning of baite.

Now as soone as you haue thus burned all your Baite, and that your hills are cold, you shall then as was before shewed in the former Chapters, with beetles and shouells breake downe the hills, and spread the earth and ashes ouer all the ground; which done, you shall sand it (if the situation of the ground bee answerable thereunto) and lime it in such sort as was shewed in the second Chapter, then when it is limed, and the lime equally spread, not more in one place then in another, you shall then meanure it with the best meanure you can prouide, of which there is none better or more proper for this ground then mans ordure, and the rubbish, sweepings, parings and spitlings of houses mixt together, or for want of this (because it may not be in so-

ſo great plenty as other meanures) you may take either old Oxe dung, or Horſe dung, or for want of them, the old rotten and mouldy ſtaddles or bottomes of Corne-ſtacks, or reeds; eſpecially Peaſe-ſtacks, or Beane-ſtacks, prouided that it be thorowly rotten, for the leſſe rotten it is, the worſe it is: Alſo the ſcowrings of common Sewers, and eſpecially thoſe through which much of mans vrine doth paſſe, is a moſt wonderfull and beneficiall meanure for theſe grounds, ſo are alſo the ſcowrings of ſinkes and channels which come from Kitchins and waſh-houſes, where great ſtore of Brine and ſalt broth is ſhed, and other greaſie, fat and putrified ſubſtances, as alſo abundance of ſope ſuddes, and buck-aſhes, and other ſope and lee waſhings, then which there is no better meanure that can be vſed for theſe kind of grounds.

After your ground is thus perfectly made and meanured, and that Wheat ſeede time doth draw on, which (as before was ſhewed) is euer at the latter end of *September*, you ſhall then plow vp your ground againe in that manner as was ſhewed for the former earths; to wit, much deeper then before: for you are to vnderſtand, that this ground being dreſt as is before declared, there will remaine nothing of the furrowes which were firſt plowed vp but the aſhes, which being couered with ſand, lime, and meanure, the earth will lie plaine and leuell, ſo that of neceſſity you muſt raiſe vp new furrowes of new earth, which being done, you ſhall then with your hacks, cut all the new earth into very ſmall pieces; mixing them well with the other mould made of ſand, lime, meanure and aſhes, then as was before ſaid, you ſhall harrow it to make the mixture ſo much the better, and the mould ſo much

the fine; and then if it haue beene ſanded, you may ſowe your Seede-wheate ſimply of it ſelfe, without any doubt of the plentifull increaſe thereof; but if it haue not bene ſanded, then as in the fore going Chapter, you ſhall not onely ſteepe your Seede in brine (as before ſhewed) but alſo you ſhall mixe your Seed with Bay ſalt, and ſo ſow it into the ground; or if at the time of ſowing (after it is plowed, hackt, and harrowed) you beſtow either Pigeons dung, or Pullens dung, or Sheepes dung vpon the land, it will be much better, and the Corne will giue a much greater increaſe. Now as ſoone as your land is ſowne, you ſhall then foorthwith harrow it againe and couer the ſeede very cloſe, then you ſhall clot it, ſmooth it, and ſleight it (as was before ſhewed.)

Of Weeding. As touching the weeding and clenſing of this earth after the Corne is ſprung vp, you ſhall vnderſtand that there is great care to be had thereunto, for this ground is much ſubiect vnto weedes, and thoſe of the worſt kinde: for although for the moſt part it will bee free from all manner of ſoft and tender weedes, as thiſtles, cockle, darnell, ketlockes, dockes, rape, and ſuch like herbe ll ſtuffe; yet is it much ſubiect to twitch bryars, which grow at both ends, lyng, Wild time, and ſuch like, any of which as ſoone as you ſhall ſee appeare or peepe aboue the earth, you ſhall preſently with your Nippers pull them vp by the rootes, and not ſuffer them in any wiſe to looke a handfull aboue the ground, for if you doe, their hardneſſe is ſo great, and their rootes ſo large and faſt fixt in the mould, that you can by no meanes pull them away without great loſſe and hurt to the graine, pulling vp with them all ſuch roots of Corne, as ſhall bee fixed neere about them: for any

any other weake & ſuperfluous things which ſhall grow from the Land, you may with ordinary weeding-hookes cut them away; as for long graſſe, whether it be ſoft or ſedgie, or any other ſuch like ſtuffe, you ſhall not ſtirre it but let it grow: for it keepeth warme the rootes of your Corne, and giueth nourishment and increaſe thereunto: Now for the profit of this ſoyle thus ordered and husbanded, it is equall with any of the former, and will beare Wheate very plentifully for the ſpace of the three firſt yeares; good Barley the fourth yeare, with the helpe of the ſheepe-fold (as was beforeſayd) and good Oates the fifth, ſixth and ſeuenth yeares; and very good ſmall Peaſe the eighth yeare (for beanes this ſoyle will very hardly beare at all) and the ninth, tenth and eleuenth yeare it will beare very good meadow (though not altogether very fine pure graſſe, yet very good feeding and wholeſome graſſe) or ſo good paſture as a man can reaſonably require for any holding Cattell whatſoeuer; nay, it will alſo indifferently well feed, and fat Cattell, though peraduenture it requireth a little longer time then other finer grounds will.

Chap. 6.

Of the ordering, Tylling and Dreſsing of all plaine, ſimple barren Sanas, bearing nothing but a ſhort moſſie graſſe.

HAuing thus (in as large manner as I hope ſhall be needfull for any iudiciall or indifferent Reader) written of the Natures, Orderings, Plowings and Dreſſings of all manner of barren and vnfruitefull Clayes, whether they be ſimple of themſelues, or elſe com-

pounded with other earths, as ſands, chalkes, grauels, and ſuch like; ſhewing by thoſe naturall burthens which continually of their owne accords, they produce (which indeede is the eaſieſt and ſafeſt way of knowledge) how to amend and better them and bring them to that perfection of fruitefulneſſe, that the beſt earth ſhall but in a very ſmall degree exceede them, nay, hardly any thing at all, except in the ſauing of a little charge and ſome labour, without which nothing is to be obtained by the Husbandman; neither is this charge or labour thus beſtowed on theſe barren grounds to be grutcht at by any honeſt minde; ſince the worſt crop often or e euen, will make good his charge and toyle with a reaſonable intereſt; ſo that I make account, nine or ten yeares profits come into his Barnes without purchaſe, for it is to be intended that all theſe earths formerly ſpoken of, are not to be dreſt or to put the Husbandman to any charge more then the firſt yeare often or eleuen, for the ſecond yeare he ſhall aſſoone as hee hath gathered his Wheate off, which will bee in *Auguſt*, and finiſht other parts of his Haruеſt; preſently put his Plow into the ſame Wheate-ground againe and plow it vp, hacke it, harrow it, ſowe it, harrowe it againe, clot it, and weede it, as in the former yeare, and ſo conſequently of all the reſt of the yeares following, whereby you perceiue that all labours and charges are ſaued more then once plowing and ſowing.

This then conſidered, it neceſſarily now followeth that I ſpeake of the bettering and bringing into perfection of all manner of barren Sand-groundes, beeing ſimple of themſelues, without any mixture of other Earthes, except one and the ſame kinde, as Sand with

with ſand, though peraduenture the colours of the ſands may alter; as red with white, yellow with blacke, &c. which in as much as the whole ſubſtance is ſand without any contrary mixture; therefore it may well be called ſimple and not compound: and of theſe ſands, I purpoſe to intreate, as formerly I did of the Clayes; that is to ſay, by their outward faces and Characters, which are thoſe burthens and increaſes which of their owne proper natures, without any helpe or compulſion of any others, they produce and bring foorth into the world.

And firſt of that naughty cold and barren ſand, which lying vpon high, ſtony, and mountainous Rocky places, or elſe vpon lower cold bleake Plaines, ſubiect to the North and North-eaſt winds and tempeſts, or bordering vpon the Seas, doth not bring foorth any thing but a ſhort moſſie graſſe which the Sun maketh bitter, & the cold dewes fulſome and ſuch vnſauory in taſte. If any man then be maſter of vnprofitable and vnfruitful earth, and deſire to haue it brought to goodneſſe and perfection, he ſhall, firſt, at the beginning of the Spring, as about midde *Aprill* or earlier, with a ſtrong Plow anſwerable to the ſoyle, yet ſomewhat leſſe both in timbers and irons then that wherewith you plow your Claye grounds: you ſhall plow ſo much of that earth vp as you may conueniently compaſſe to ſowe and dreſſe exactly and perfectly; for to vndertake more, were to make all vnprofitable, and to caſt away much labour and charge without any profit; this ground you ſhall plow of an indifferent depth, though not ſo deepe as the Clayes, and you ſhall lay the furrowes though flat, yet cloſe one to another, without leauing any balke betweene, but plowing all very cleane; yet not ſo *Plowing.*

very cleane and cloſe together, that you may lay the greene ſwarth to the new plowed or quicke earth; but rather turne one ſwarth againſt another, ſo as the furrowes may lye, and no more but touch the edges one of another: This when you haue done, you ſhall then with your hacks cut and breake all the earth ſo turned vp into very ſmall pieces, and not onely the earth ſo turned vp, but alſo all other greene ſwarth which was left vnplowed; prouided, that before this labour of hacking, you let the ground lie certaine dayes in the furrowes, that one ſwarth heating and ſcalding the other, they may both equally rot and grow mellow together, which once perceiued by the blackneſſe thereof, you may then at your pleaſure hacke it and cut it as is before declared.

Obiection. Now ſome may in this place obiect vnto me, that this labour of hacking ſhould be needleſſe, in as much as all ſand grounds whatſoeuer are out of their owne natures ſo light, looſe, and vnwilling to diſſeuer, that this toyle might very well and to good purpoſe bee ſaued.

Anſwer. To this I anſwere, that true it is, moſt ſands in their owne natures are looſe, and light, and willing to diſſeuer into fine mold without any extremity, eſpecially rich and fruitfull ſands, whoſe predominant quality of warmth giueth nouriſhment and increaſe; but theſe barren and cold ſands, in which is a certaine flegmatique toughneſſe and moſt vnwholeſome drineſſe, are of a cleane contrary nature, and through the ſtony hardneſſe thereof, they are as vnapt to breake and diſſeuer as any Clay whatſoeuer: beſides, the ſwarth being of a tough moſſie ſubſtance (which euer carrieth a hard ſtrong roote anſwerable with the cold in which

it

it is ingendred) doth ſo conſtantly binde, fetter, and hold the mold together, that it is impoſſible for any harrow to breake it in pieces, or to gather from it ſo much mould as may ſerue to couer the Corne and giue it roote when it is ſowne into the ſame; and therefore this worke of hacking is neceſſary.

When therefore you haue thus hackt your Land, and diſtributed the mould into many ſmall pieces, you ſhall then with all expedition marle it; which foraſmuch as it is no generall or common practice in euery part of this Kingdome, I will firſt tell you what Marle is, and then how to find it, digge it, and vſe it for your beſt behoofe. Of Marling.

Marle, you ſhall then vnderſtand is (according to the definition of Maſter *Bernard Palliſſy*) a naturall and yet an excellent ſoyle, being an enemie to all weedes that ſpring vp of themſelues, and giuing a generatiue vertue to all ſeedes that are ſowne vpon the ground, or (for the plaine husbandmans vnderſtanding) it is a certaine rich, ſtiffe and tough Clay, of a glewie ſubſtance and not fat or Oylie as ſome ſuppoſe. This Marle is in quality cold and dry and not hot (as ſome would haue it) and it was earth before it came to be Marle, and being made Marle yet it is but a Clay ground; all Chalke whatſoeuer was Marle before it was Chalke, and all manner of Stones which are ſubiect vnto Calcynation or burning, as Lime-ſtone; Flint, or the like, were firſt Marle before they were ſtones, and onely hardned by accident and ſo not poſſible to be diſſolued but by fire: as for Marle it ſelfe when it is a little hardned it is onely diſſolued by froſts and nothing elſe, and thence is the cauſe that Marle euer worketh better effect the ſecond yeare then the firſt; Additions.

This

This Marle hath beene made ſo precious by ſome writers that it hath beene accounted a fift element, but of this curioſity I will not now diſpute.

Touching the complections or colours of Marle, there is ſome difference, for though a I conclude there are foure ſeuerall colours in Marle, yet one ſaith, there is a white, a Gray or Ruſſet, a Blacke and Yellow; another ſaith, there is a Gray, a Blew, a Yellow and a Red; and a third ſaith, there is a Red and white mixt like vnto porphery, and all theſe may well be reconciled, and the colours may alter according to the Climat and ſtrength of the Sunne: So that by theſe Characters the colour, the toughneſſe, and the looſeneſſe when it is dryed, any man of iudgement may eaſily know Marle from any other earth whatſoeuer. This Marle is ſo rich in it ſelfe, and ſo excellent for continuance, that it will maintaine and enrich barren grounds, the worſt for ten yeares, ſome for a dozen, and ſome for thirty yeares; yet there is a great reſpect to be had in laying of this Marle vpon the ground, that is to ſay, that you lay it neither too thicke nor too thinne, that you giue it neither too much, nor too little, for any of theſe extremities are hurtfull; and therefore hold a meane, and ſee there bee an indifferent mixture between the Marle and the earth, on which it is laid.

For the generall finding out of this Marle, there is no better way for readineſſe and the ſauing of charges, then by a great Augure or wimble of Iron made to receiue many bits one longer then another, and ſo wreting one after another into the ground to draw out the ſtearth till you finde you are come to the Marle, which perceiued and an aſſay taken, you may then digge at your pleaſure.

Now

Now for the places moſt likely where to finde this Marle, it is commonly found in the loweſt parts of high Countries, neere Lakes and ſmall Brookes, and in the high parts of low Countries, vpon the knols of ſmall hills, or within the Clifts of high Mountaineus bankes, which bound greater Riuers in: to conclude, you ſhall ſeldome finde any of theſe barren ſands but they are either verdged about with marle grounds, or if you will beſtowe the labour to digge below the land, you ſhall not faile to finde either marle or ſome quarrie of ſtone, or both; for in ſome places marle lyeth very deepe, in other ſome places within a ſpades graft of the vpper ſwarth of the earth: therefore it ſhall be good for you to make proofe of all the moſt likely parts of your ground to finde out this marle; and as ſoone as you haue found it out, you ſhall with mattockes and ſpades digge it vp and carry it to your land, there laying it in bigge round heapes, and ſetting them within a yard or two one of another; thus when you haue filled ouer all your ground (which would be done with as great ſpeed as might be, for the ancient cuſtome of this Kingdome was, when any man went about to marle his ground, all his Tenants, Neighbours and friends would come and helpe him to haſten on the worke) you ſhall then ſpread all thoſe heapes, and mixing the Clay well with the Sand, you ſhall lay all ſmooth and leuell together; and herein is to be obſerued, that if the land you thus marle ſhall lye againſt the ſide of any great Hill or Mountaine, whereby there will bee much deſcent in the ground, then you ſhall (by all meanes lay double as much Marle, ſand, or other compaſſe on the toppe of the hill as on the bottome, becauſe the

the raine and ſhowers which ſhall fall will euer waſh the fatneſſe of the earth downe to the loweſt parts thereof.

Now in the laying of your marle, you are to hold this obſeruation, that if you laye it on hard and binding grounds, then you are to lay it in the beginning of Winter, but if on grounds of contrary nature, then it muſt be laid in the ſpring or Summer. Againe, you ſhall obſerue, that if you cannot get any perfect and rich marle, if then you can get of that earth which is called Fullers earth, and where the one is not, commonly euer the other is, then may you vſe it in the ſame manner as you ſhould marle, and it is found to be very neere as profitable.

☞ Additions. Obſeruations

When your ground is thus marled (if you bee neere to the ſea-ſide) you ſhall then alſo ſand it with ſalt ſea-ſand, in ſuch ſort as was formerly declared, onely you may forbeare to lay altogether ſo much vpon this ſand ground as you did on the Clay ground, becauſe an halfe part is fully ſufficient. If you cannot come by this ſalt-ſand, then in ſtead thereof, you ſhall take chalke, if any be to be had neere you, and that you may lay in more plentifull manner then the ſand; and al-be it is ſayd that chalke is a wearer out of the ground, and maketh a rich father, yet a poore ſonne, in this ſoyle it doth not ſo hold, for as it fretteth and waſteth away the goodneſſe that is in Clay groundes, ſo it comforteth and much ſtrengtheneth theſe ſand earthes: and this chalke you ſhall laye in the ſame manner as you did your marle, and in the ſame manner ſpread it and leuell it; which done, you ſhall then Lime it, as was before ſhewed in the Claye grounds, yet not ſo abundantly, becauſe alſo a halfe part will bee ſufficient; after your Liming, you ſhall then meanure it with the beſt meanure that you haue, whether it bee dung

Of Chalke, and the vſe.

dung of Cattell, Horſe, Sheepe, Goats, ſtraw, or other rubbiſh; and that being done, and ſeede-time drawing on, you ſhall then plow vp your ground againe, mixing the new quicke earth and the former ſoyles ſo well together, that there may be little diſtinguiſhment betweene them; then you ſhall hacke it againe, then harrow it, and laſtly, ſow it with good, ſound, and perfect ſeed, and of ſeedes though Wheate will very well grow vpon this earth, yet Rye is the more naturall and certaine in the increaſe: yet according to the ſtrength of the ground, you may vſe your diſcretion, obſerving that if you ſowe wheate, then to ſteepe it before in brine or ſalt ſea water, as was before deſcribed; but if you ſowe Rye, then you ſhall ſow it ſimply without any helpe, except it be Pigeons dung, or Bay-ſalt ſimple of it ſelfe, in ſuch manner as hath beene before declared; either ſowing the ſalt with the Corne, or before the Corne, as ſhall ſeeme beſt in your owne diſcretion.

After your ſeede is ſowne, you ſhall then harrow it againe, clot it, ſmooth it, and ſleight it, as before is ſhewed in the ſecond Chapter, which done (after the Corne is ſhot aboue the earth) you ſhall then looke to the weeding of it, being ſomewhat a little too much ſubiect to certaine particular weedes, as are Hare-bottles, wild Cheſſe-bolles, Gypſy flowers, and ſuch like, any of which, when you ſee them ſpring vp, you ſhall immediatly cut them away cloſe by the rootes, as for tearing their rootes out of the ground with your Nippers, it is not much materiall, for the cutting of them is ſufficient, and they will hardly euer againe grow or do you any hinderance, many other weedes there may grow amongſt theſe which are alſo to be cut away, but

theſe

theſe are the principall, and of moſt note wherefore as ſoone as you haue cleanſed your lands of theſe and the reſt, you ſhall then referre the further increaſe of your profit vnto Gods prouidence.

The Profits. Laſtly, you ſhall vnderſtand that this ground being thus plowed, dreſt, and ordered, will without any more dreſſing, but once plowing and ſowing, euery yeare beare you good Wheate or good Rye three yeares together; then good Barley the fourth yeare; good oates the fifth, ſixth and ſeuenth yeares; excellent good Lupins the eighth yeare, and very good Meadow or Paſture three or foure yeares after, and then it ſhall beneceſſary to dreſſe it againe in ſuch manner as was before deſcribed.

Chap. 7.

Of the Plowing, Tilling, Ordering and Inriching of all Barren Sands which are laden and ouer-runne with Braken, Ferne, or Heath.

NExt vnto this plaine, cold, barren Sand, which beareth no other burthen but a ſhort moſſie graſſe; I will place that Sand which is laden and ouer-runne with Braken, Ferne, or Heath, as being by many degrees more barren then the former, both in reſpect that it is more looſe, and leſſe ſubſtantiall, as alſo in that it is more dry and harſh, and altogether without nutriment, more then in extreame ſterile coldneſſe, as appeareth by the burthen it bringeth forth, which is Braken or Ferne, a hard, rough, tough weede, good for nothing but to burne, or elſe to litter ſtore beaſts with, for the breeding of meanure; or if you ſtrow it in the high wayes where many trauellers paſſe, it will alſo there turne

to

to good reasonable compasse.

Of this kind of ground if you be maister, and would reduce it vnto fertility and goodnesse, you shall first, whether the Braken be tall and high (as I haue seene some as high as a man on Horse-backe) or short, and low (as indeede most commonly these barren earths are, for tall Ferne or Braken shewes some strength in the ground) you shall with sythes first mowe it downe in the moneth of *May*; then wither it and dry it vpon the ground, and after spread it as thinne as you can ouer all the earth you intend to plow; which done, you shall bring your plow and begin to plow the ground after this order: first, you shall turne vp your furrow, and lay it flat to the ground, greene-swarth against greene-swarth, then looke how broad your furrow is so turned vp, or the ground so coucreth, and iust so much ground you shall leaue vnplowed betweene furrow and furrow, so that your land may lye a furrowe and a greene balke, a furrowe and a greene balke, till you haue gone ouer all the ground, then shall you take a paring-shouell of yron, and pare vp the greene swarth of all the balkes betweene the furrowes, at least two inches thicke, and into peeces of two or three foote long, and with these peeces of earth, and the dry Ferne which is pared vp with them, you shall make little round hollow Baite hils, as in the third and fourth Chapters; and these hils shall be set thicke and close ouer all the ground, and so set on fire and burnt; then when the fire is extinct, and the hilles cold, you shall first with your hacks cut in peeces all the furrows that were formerly turned vp, and then breake downe the burnt hils, and mixe the ashes and earth with the other mould very well together; which done, you shall then

Of destroying Braken.

Of Marle.

then with all ſpeede marle this earth as ſufficiently as poſſibly may be, not ſcanting it of marle, but beſtowing it very plentifully vpon the ſame; which done, you ſhall then plow it ouer againe, and plowing it exceedingly well, not leauing any ground whatſoeuer vnturne vp with the plow; for you ſhall vnderſtand that the reaſon of leauing the former balkes, was that at this ſecond plowing after the marle was ſpread vpon the ground, the new, quicke, and vnſtirred freſh earth might as well bee ſtirred vp to mixe with the marle, as the other dead earth and aſhes formerly receiued, whereby a freſh comfort ſhould be brought to the ground, and an equall mixture without too much dryneſſe, and this ſecond Ardor or plowing would begin about the latter end of *Iune*.

Sanding and liming.

After your ground haue beene thus marled, and the ſecond time plowed, you ſhall then ſand it with ſalt Seaſand, lime it, and meanure it, as was declared in the fore-going Chapter: and of all meanures for this ſoyle, there is not any ſo exceeding good as ſheepes meanure, which although of the Husbandman it bee eſtemed a meanure but of one yeare, yet by experience in this ground it happeneth otherwiſe, and is as durable, and as long laſting a compaſſe as any that can be vſed, and beſides it is a great deſtroyer of thiſtles, to which this ground is very much ſubiect, becauſe vpon the alteration of the ground the Ferne is alſo naturally apt to alter vnto thiſtles as we daily ſee.

Plowing and ſowing.

When your ground is thus dreſt and well ordered, and the Seede-time commeth on, you ſhall then plow it againe, in ſuch manner as you did the ſecond time, that is to ſay, very deepe, cleane and after the manner of good Husbandry, without any reſt balkes or other diſorders:

diſorders: then ſhall you hacke it very well, then harrow it, and then ſow it; but by mine aduice, in any caſe, I would not haue you to beſtow any Wheate vpon this ſoyle (except it be two or three buſhels on the beſt part thereof for experience ſake, or prouiſion for your houſhold) for it is a great enemie vnto Wheate, and more then the marle hath no nourithment in it for the ſame, becauſe all that commeth from the ſalt ſand, lime, and meanure is litte enough to take away the naturall ſterility of the earth it ſelfe, and giue it ſtrength to beare Rye, which it will doe very plentifully; and therefore I would wiſh you for the firſt three yeares onely, to ſow the beſt Rye you can get into this ground; the fourth yeare to ſow Barley; the fift, ſixt, and ſeuenth, Oates; and of Oates, the bigge blacke Oate is the beſt for this ground, maketh the beſt and kindlyeſt Oat-malt, and feedeth Horſe or Cattell the ſoundeſt; as alſo it is of the hardeſt conſtitution, and endureth either cold or dryneſſe much better then either the white Oate, the cut Oate, or any Oate whatſoeuer; the eight yeare, you ſhall onely ſow Lupins or Fetches; and three yeares after, you ſhall let it lye for graſſe, and then dreſſe it againe as before ſaid; for it is to bee vnderſtood, that in all the following yeares (after the firſt yeare) you ſhall beſtow no labour vpon this ground more then plowing, ſowing, hacking and harrowing at Seed-time onely.

But to proceed to the orderly labour of this ground, after you haue ſowne your Rye, you ſhall then harrow it againe, clot it, ſmooth it, and ſlight it, as was before ſhewed in the ſecond Chapter of this Booke. And although a man would imagine that the ſandy looſeneſſe of this ſoyle would not needs much

Labours after ſowing.

clotting or ſleighting of the Earth, yet by reaſon of the mixture thereof with the Marle and meanure, it will ſo hold and cleaue together, that it will aske good ſtrong labour to looſen it and lay it ſo hollow and ſmooth as in right it ſhould be.

Weeding. Touching the weeds which are moſt ſubiect to this ſoyle, they are Thyſtles, and young Brakes or Fernes which will grow vp within the Corne, which before they riſe ſo high as the Corne, and euen as it were at the firſt appearing, you muſt with your woodden Nyppers pull vp by the roots, and after take vp and lay in ſome conuenient place where they may wither and rot, and ſo turne to good meanure.

Chap. 8.

Of the Plowing, Tilling, Ordering, and Enriching of all barren Sands, which are laden and ouer-runne with Twitch, or wyld Bryar.

HAuing written ſufficiently of this hard and barren, waſt, wyld, ſandy ground, which is ouer-run with Braken, Ferne, Heath, and ſuch like: I will now proceed, and vnto it ioyne another ſand which is much more barren; and that is the ſand that bringeth forth nothing but wyld Twitch, Bryars, Thorn-buſh, and ſuch like vndergrowth of yong miſliking wood, which neuer would riſe or come to profit, the bitter cold drynes of the earth wherein it groweth, and the ſharpe ſtormes to which the clime is continually ſubiect both day and night, blaſting it in ſuch manner that nothing appeareth but ſtarued, withered, and vtterly vnprofitable burthens, good

good for nothing but the fire, and that in a very ſimple ſort. Such ground if you bee Maſter of, and would reduce it to profit and fruitfulneſſe, you ſhall firſt with hookes or axes cut vp the vpper growth thereof, that is, the buſhes, young trees, and ſuch like, then you ſhall alſo ſtubbe vp the roots, not leauing any part of them behind in the earth, carrying away both home to your houſe to be imployed either for fuell, or the mending of the hedges, or ſuch like, as you ſhall haue occaſion; this done, you ſhall take a paire of ſtrong yron harrowes, and with them you ſhall harrow ouer all the earth, tearing vp all the Twitch, Bryars, and rough graſſe ſo by the roots, that not any part but the beare earth may bee ſeene, and when your harrowes are cloyed, you ſhall vnlade them in ſeuerall places of the ground, laying all ſuch rubbiſh of weedes and other ſtuffe, which the harrowes ſhall gather vp, in a little round hill, cloſe vp together that they may ſweat, wither and dry, then ſpreading them abroad and mixing them well with dry ſtraw, burne them all ouer the ground, leauing no part of the weeds or graſſe vnconſumed, then without beating in of the aſhes, you ſhall preſently plow the ground all ouer very cleane as may be, laying the furrows as cloſe as you can one to another, & leauing no earth vntoucht or vntorne vp with the plow, which done, you ſhall immediately hack it into ſmall pieces, & as you hack it, you ſhall haue idle Boyes to goe by the Hackers, to gather away all the roots which they ſhall looſen or breake from the mold, & laying them on heaps in the worſt part of the ground, they ſhall there burne them, and ſpread the aſhes there, on, after your ground is thus harrowed, plowed, & hackt, you ſhall then mucke it, as was formerly ſhewed in the

Deſtroying of Twitch and Bryar.

ſixt Chapter, then ſhall you ſand it, lime it, and meanure it as before ſaid.

Meanures.

Now of meanures, which are moſt proper for this ſoyle, you ſhall vnderſtand that either Oxe, or Horſe meanure, rotten ſtraw, or the ſeowring of Yards is very good, prouided that with any of theſe meanures, or all theſe meanures, you mixe the broad-leaued weedes, and other greene-weeds, which grow in Ditches, Brookes, Ponds or Lakes, vnder Willow trees which with an Iron Rake, Drag, or ſuch like inſtrument, you may eaſily draw vpon the banke, and ſo carry it to your land, and there mingle it with the other meanure, and ſo let it rot in the ground, this meanure thus mixed is of all other moſt excellent for this ſoyle, both by the experience of the Ancients who haue left it vnto memory, as alſo by daily practice now vſed in ſundry parts of this Kingdome aſwell becauſe of the temperate coolneſſe thereof, which in a kindly manner aſſwageth the lime and ſand, as alſo through the moyſture which diſtilling through thoſe warme Soyles doth quicken the cold ſtarued earth, and giueth a wonderfull increaſe to the ſeed that ſhall be throwne into the ſame.

Harrowing and other labours.

After your ground is thus ſufficiently dreſt with theſe ſoyles and meanures, you ſhall then plow it againe the ſecond time; which would be after *Michaelmas*, after the plowing you ſhall then hacke it againe, and be ſure to mixe the earth and the meanures very well together, then you ſhall breake it in gentle manner with your Harrowes, and then ſow it; which done, you ſhall harrow it againe, but then you ſhall harrow it much more painefully, and not leaue any clots or hard earth vnbroken that the Harrow can pull in pieces: as touching

touching the ſeede which is fitteſt for this earth, it is the ſame that is ſpoken of in the next foregoing Chapter: as namely, the beſt Rie or the beſt Maſlin, which is Rie and Wheate equally mixt together; or if there be two parts Rye, and but one Wheate, the ſeede will be ſo much the more certaine and ſure holding, and this ſeede you may ſowe on this ground three yeares together, then Barley, then Oates, and ſo foorth, as is formerly writ of the grounds foregoing. After your ground is ſowne and harrowed, you ſhall then clot it, ſleight it, and ſmooth it as you did the other grounds before, and then laſtly with your backe Harrowes, that is, with a paire of harrowes, the teeth turned vpward from the ground, and the backe of the harrowe next vnto the ground, you ſhall runne ouer all the ground and gather from the ſame all the looſe Graſſe, Twitch, or other weedes that ſhall any waies be raiſed vp, and the ſame ſo gathered, you ſhall lay at the lands end in heapes, either to rot for meauure, or elſe at the time of the yeare to be burnt for aſhes, and ſprinkled on the earth the next ſeed time.

Laſtly touching the weeding of this ſoyle, you ſhall vnderſtand the weedes which are moſt incident thereunto, are all the ſame you firſt went about to deſtroy: as namely, Twitch, rough wild Graſſe, and yong woody vndergrowth, beſides Thiſtles, Hare-bottles, and Gipſie flowers; therefore you ſhall haue a great care at the firſt appearance of the Corne, to ſee what weedes ariſe with it, (for theſe weedes are euer fully as haſty as the Corne) and aſſoone as you ſee them appeare, both your ſelfe and your people with your hands ſhall pull them vp by the rootes, and ſo weede your land as you would weede a garden, or Woad-

Weeding.

ground. Now if at this firſt weeding (which will bee at the latter Spring commonly called *Michaelmas*, or the Winter Spring) you happen to omit and let ſome weeds paſſe your hands vnpulled vp) which very well may chance in ſo great a worke) you ſhall then the Summer Spring next following (ſeeing them as hie or peraduenture hier then the Corne) with your wooden nippers pull them vp by the roots from the ground, and ſo caſt them away: As touching the cutting them vp cloſe by the ground with ordinary weede hookes, I doe in no ſort allow it, for theſe kinde of weeds are ſo apt to grow, and alſo ſo ſwift in growth, that if you cut them neuer ſo cloſe in the Spring, yet they will againe ouermount the Corne before harueſt, and by reaſon of their greatneſſe, roughneſſe, and much hardneſſe choake and ſlay much Corne that ſhall grow about them, and therefore by all meanes you ſhall pull theſe weeds vp by the roots whilſt they are tender, if poſſibly you can) or otherwiſe in their ſtronger growth, ſith their ſufferance breedeth great loſſe and deſtruction.

Chap. 9.

Of the Plowing, Tilling, Ordering and Enriching of all barren Sands which are ouer-runne with moſſes or moriſh ſtinking long Graſſe.

Vnto theſe fore-going barren Sands, of which I haue already written, I will laſtly ioyne this laſt barren Sand, being of all earths, whether Clay or Sand the moſt barreneſt, and that is that filthy, black, moriſh Sand which beareth nothing but a ſtinking, putrified

ed Graſſe or Moſſe, or Moſſe and Graſſe mixed together, to which not any Beaſt or Cattell, how courſe or hardly bred ſoeuer, will at any time lay their mouthes: and this kinde of ground alſo is very much ſubiect to mariſhes and quagmires, of which that which is couered with Moſſe, or Graſſe, is the worſt, and that which is tufted aboue with ruſhes, the beſt and ſooneſt reduced vnto goodneſſe; in briefe, all theſe kinds of grounds generally are extreamly moiſt and cold, the ſuperabundance whereof is the occaſion of the infinite ſterility and barrenneſſe of the ſame.

And therefore hee that is maſter of ſuch vnprofitable Earth, and would haue it brought to ſome profit or goodnes, ſhall firſt conſider the ſituation of the ground, as whether it lie high or low, for ſome of theſe mariſh grounds lie low in the Vallies, ſome on the ſides of Hilles, and ſome on the tops of Mountaines; then whether the much moiſtneſſe thereof bee fedde by Riuer, Lake or Spring, whoſe veines not hauing currant paſſage through or vpon the earth, ſpreads ſookingly ouer all the face thereof, and ſo rotting the mould with too much wette, makes it not onely vnpaſſable, but alſo vtterly vnprofitable for any good burthen.

Now if you finde that this mariſh Earth lie in the bottome of low vallies, as it were gerded about with hilles of higher grounds, ſo that beſides the feeding of certaine Springs, Lakes, or Riuers, euery ſhowre of raine or falling of water from higher grounds bringeth to theſe an extraordinary moiſture to maintaine the rottenneſſe, in this caſe this ground is paſt cure for graſſe or Corne, & would onely be conuerted and made into a fiſh pond for the breeding and feeding of Fiſh, being a Ground for Fiſh-ponds.

thing no leſſe profitable to the Husband man for kee-ping his houſe, and furniſhing the market then the beſt corne-land hee hath; and therefore when hee maketh any ſuch pond, he ſhall firſt raiſe vp the head thereof in the narroweſt part of the ground, and this head by dri-uing in of ſtakes and piles of tough and hard wood as Elme, Oake, and ſuch like, and by ramming in of the earth hard betweene them, and ſodding the ſame ſo faſt that the mould can by no meanes be worne downe or vndermined with the water, hee ſhall bring it to as firme earth as is poſſible, and in the midſt of this head he ſhall place a ſluce or flood-gate made of ſound and clean Oke timber and plankes, through which at any time to drayne the Pond when occaſion ſhall ſerue, and this done, you ſhall digge the pond of ſuch depth as the earth conueniently will beare, and caſting the earth vp-pon either ſide, you ſhall make the bankes as large and ſtrong as the ground requireth, then if any ſpring which did before feede the earth be left out of the com-paſſe of the pond (becauſe it lieth too high to bee brought in) then ſhall you by drawing gutters or draines from the ſpring downe to the pond, bring all the water of the ſprings into the pond, and ſo continually feede it with freſh and ſweete water. Then ſtoring it with Fiſh of beſt eſteeme, as *Carpe, Tench, Breame, Pearch*, and ſuch like, and keeping it from weeds, filth and vermine, there is no doubt of the dayly profit.

But if this mariſh and low ground, though it lye low and haue many ſprings falling vpon it, yet it lyeth not ſo extreame low but that there is ſome Riuer or dry dit-ches bordering vpon it, which lye in a little lower diſ-ſent, ſo that except in caſe of inundation the riuer and ditches are free from the moyſture of this ground, but where

where there is any ouer-flowing of waters, there this mariſh ground muſt needes be drowned, in this caſe this ground can hardly be made for Corne, becauſe euery ouer-flow putteth the graine in danger, yet may it be well conuerted to excellent paſture or meddow, by finding out the heads of the ſprings, and by opening and cleanſing them, and then drawing from thoſe cleanſed heads, narrow draines or furrowes, through which the waters may paſſe to the neighbour ditches, and ſo be conueyed downe to the lower Riuers; leauing all the reſt of the ground dry, and ſuffering no moyſtures to paſſe, but what goeth through theſe ſmall deepe channels, then as ſoone as ſommer commeth, and the ground begins to harden, if you ſee any of the water ſtand in any part of the ground, you ſhall foorthwith mend the draine, and helpe the water to paſſe away, which done, (as the ground hardeneth) you ſhall with hackes and ſpades lay the ſwarth ſmooth and plaine, and as early in the yeare as you can conueniently, you ſhall ſow vpon the ground good ſtore of hay ſeedes, and if alſo you do meanure it with the rotten ſtaddles or bottomes of hay-ſtackes, it will be much the better, and this ſtaddell you ſhall not ſpread very thicke, but rather of a reaſonable thinneſſe, that it may the ſooner rot and conſume vpon the ſame.

But if this mariſh and filthy ground doe not lye ſo low as theſe low valleyes, but rather againſt the tops of hils, you ſhall then firſt open the heads of all the ſprings you can finde, and by ſeuerall draines or ſluces, draw all the water into one draine, and ſo carry it away into ſome neighbouring ditch and valley; and theſe draines you ſhall make of a good depth, as at leaſt two foote, or two foote and a halfe, or more, if needs requi-

Draining of wet ground.

require, and then croſſe-wiſe, euery way ouer-thwart the ground, you ſhall draw more ſhallow furrowes, all which ſhall fall into the former deepe draines, and ſo make the ground as conſtant and firme as may be: then hauing an intent to imploy it for corne, you ſhall bring your plow into the ground, being a very ſtrong one, and not much differing in Timber-worke or Irons from that which turneth vp the clay grounds, and laying before the plow long waddes or roules of the ſtraw of Lupines, Peaſe, or elſe Fetches, (but Lupines is the beſt) you ſhall turne the furrowes of earth with the plowe vpon the waddes, and ſo couer or bury them in the mould, and thus doe vnto euery furrow, or at leaſt vnto moſt of the furrowes you turne vp. and ſo let it lye a little time to rot, as by the ſpace of a fortnight or three weekes, in which ſpace, if the ground receiue not rayne and moyſture enough to rot the ſtrawe thus formerly buried, you ſhall then by ſtopping the draines, and making the Springs ouer-flowe, gently waſh the ground all ouer and no more, and then preſently draine it againe; which done, aſſoone as the earth is dry, you ſhall hacke it and breake into ſmall peeces, and then you ſhall alſo Sand it, Lime it, and meanure it.

And laſtly, you ſhall marle it, but if no ſalt ſand be to be had, then in ſtead of it, you ſhall chalke it, yet of all the reſt you ſhall take the leaſt part of chalke.

This done, about the latter ende of *July* you ſhall plow vp the ground againe with ſomewhat a better and deeper ſtytch then you did before, that if any of the ſtrawe be vnrotted or vnconſumed, it may againe bee rayſed vp with the new moyſt earth, and ſo made to waſte more ſpeedily, and if at this ſecond carrying you doe

doe see any great hard clots to rise, then with your hackes you shall breake those hard clots in peeces, laying the land cleane without clots, weedes, or any other annoyance, and so let it rest till *October*, at which time you shall plow it euer againe, hacke it, harrow it, and then sowe it with the best seede-wheate; for this soyle thus dresst and meanured, albeit it be of all other the most barren, yet by reason of this moysture which at pleasure may be put to it, or taken from it, and by the mixture of these comfortable soyles and compasses, it is made as good and fruitefull as any earth whatsoeuer, and will beare Wheate abundantly for the space of three yeares together; then good Barley the fourth yeare, with a little helpe of a Sheepfolde, or sheepes meanure; then Rye the fifth yeare; Oates the sixth, the seuenth and eighth yeares; small Pease, the ninth yeare; good medow or pasture three yeares following, and then to be new dresst againe, as before sayd.

Harrowing. Now as soone as your seed-wheat is sowne, you shall then harrow the ground againe, and be sure to couer the wheate both deepe and close, as for the clots which shal arise from this soile, it shall not matter whether you breake them, or no, for by reason of their moisture, they will be pliant and easie for the wheate to passe thorow, so that you shall not care how rough your land lie, so it lie cleane, and the corne well couered, but for all other seedes, you shall breake the clots to dust, and lay the land as smooth as may be.

Weeding. Now for the weeding of this soyle, you will not be much troubled therewith, because this ground naturally of it owne accord, putteth forth no weeds, more then these which are ingendred by the new made fruitfulnesse

fulneſſe thereof, and thoſe weeds for the moſt part are a kind of ſmall ſedge, or hollow reede; any of which if you ſee appeare, or with them any other kind of weed, you ſhall at the firſt appearance, either pull them vp by the rootes with your woodden nippers, or elſe cut them cloſe by the ground with your weed-hookes.

Chap. 10.

A generall way for the inriching of any poore arable ground, either Clay or Sand, with leſſe charge then formerly.

IF the former demonſtrations and inſtructions which I haue ſhewed thee, appeare neither too difficult, or too coſtly (for now I ſpeake to the plaine, ſimple, poore Husband man) and yet thou art maiſter of none but barren earth, then thou ſhalt by thine owne induſtry, or the induſtry of thy Children, Seruants, and ſuch like, or by contracting with Taylors, Botchers, or any poore people that will deſerue a penny, gather vp, get or buy all the ragges, ſhreds, and baſe peeces of woollen cloth whatſoeuer, which are onely caſt out, and fit for nothing but the dung-hill, and of theſe if thou caſt compaſſe but a ſacke full, or a ſacke full and a halfe, it is ſufficient for the dreſſing of an acre of arable ground. Theſe ſhreads and ragges (torne ſmall) or hackt and hewed into ſmall peeces or bits, thou ſhalt thinly ſpread ouer the land before fallowing time, then comming to fallow, plow them all into the ground, and be ſure to couer them, then giue your land the reſt of it arders, as ſtirring, foyling, ridging, &c. in their due ſeaſons, and

Ragges of woollen cloth.

afte

after an Husbandly manner: then when you come to ſow it, you ſhall take the ſlimie thicke water which commeth from dung hils; or for want thereof, water in which Cow-dung hath beene ſteeped, and therein you ſhall ſteepe your ſeed corne, that is to ſay, if it be Barley, you ſhall ſteepe it for the ſpace of thirty ſixe howres, or thereabouts; if it be Wheate, but eighteene howres; and if it be Peaſe, but twelue howres; for Rye or Oates, not at all: and the ſeed thus ſteeped, you ſhall ſow it according to good Husbandry, and there is no doubt of wonderfull increaſe. Steeping of ſeed-corne. Or any pulſe.

There be others which take the ſeed-corne, and ſteeping it in good ſtore of Cow-dung and water, ſtirre all together for an houre in the morning, and an houre at night, and then being ſetled, draine the water from the ſeede and the dung; and the next morning ſowe the corne and the dung both together on the land, being ſure not to ſcant the land of ſeede, and no doubt the increaſe will be wonderfull.

Now if this cannot be conueniently done, or that you want dung, if then you take ordinary water, and therein ſteepe your ſeed, it is good alſo, and eſpecially for Barley, as is approued by dayly experience.

But now me thinkes I heare the poore man ſay, that here is but one acre dreſt, and that is a ſmall proportion: to this I anſwer, If thou beeſt able but to dreſſe one acre with theſe woollen ragges, thou ſhalt then ſearch amongſt the Horners, Tanners, Lanthorne-makers, and ſuch like, and get all the waſt ſhauings of horne which thou canſt poſſibly compaſſe, and as before of the rags, ſo of theſe a ſacke and a halfe, or two ſackes will dreſſe an acre: theſe ſhauings (which are indeed good for no other vſe) you ſhall ſcatter vpon the land as you did the ragges, Shauings of horne.

ragges, then plow them in after the ſame manner, ſo order the ground, ſo ſow, and in the ſame manner ſteepe the ſeede, and queſtionleſſe the increaſe will be wonderfull great: theſe meanures will laſt fiue yeares without any renewing. Now if of theſe you cannot get ſufficient to trimme all your ground, you ſhall then deale with Butchers, Sowſe-women, Slaughter-men, Scullions, and the like; and from theſe you ſhall get all the hoofes you can, either of Oxe, Cow, Bull, Calfe, Sheepe, Lambes, Deere, Goates, or any thing that cheweth the cud, and which indeed, if not for this vſe, are otherwiſe vtterly caſt away to the dung-hill, and deſpiſed; and theſe hoofes you ſhall cut and hew into ſmall peeces, and ſcatter thicke vpon your land at fallowing time, then plow them in as aforeſayd, and do in all points as with the other meanures already recited, and ſo ſteepe your ſeed, and there cannot be a greater inricher of arable ground whatſoeuer.

Hoofes of cattell.

Now if all theſe will not yet compaſſe your land, you ſhall then ſee what ſope aſhes you can get or buy, for of all meanures there is none more excellent, for beſides it giueth an exceeding ſtrength and fatneſſe to the land, it alſo killeth all manner of weedes, great and ſmall, as Broome, Gorſe, Whynnes, and the like, and it killeth all manner of Wormes, and venemous creeping things, it is excellent for Woad, and the ground renewed yearely therewith, may bee ſowne continually: theſe ſope-aſhes muſt bee layde on the land after the fallowing, and then ſtirred in, two load thereof will ſerue to dreſſe an Acre: when it is fit for ſeede, the ſeede muſt bee ſteept as aforeſayde, and then ſowen, and the increaſe will quit the charge manifold. Theſe ſope-aſhes are alſo excellent good for

Of Woade.

for Hempe & Flaxe, being thinly ſowne vpon the land, after is plowed, and immediatly before the Seede bee ſowne: But if you haue more land to dreſſe, then you muſt make vſe of your owne ordinary meanure, as is Oxe dung, Horſe-dung, and the like, which that you may make richer and ſtronger then otherwiſe of it owne nature it would be, you ſhall cauſe continually to be throwne vpon it all your powdred beefe broth, and all other ſalt brothes or brines which ſhall grow or breede in your houſe, alſo all manner of ſoape-ſuddes, or other ſuddes, and waſhings which ſhall proceede from the Launderie, and this will ſo ſtrengthen and inrich your meanure that euery loade ſhall bee worth fiue of that which wanteth this helpe. There bee diuerſe other meanures which doe wonderfully inrich and fatten all manner of barren grounds, as namely the haire of beaſtes hides (which for the moſt part Tanners and Glouers doe caſt away) this thinly ſpread on the lande, and plowed in, brings euery yeare a fruitefull croppe. Againe, if Braken or Ferne be layed a foote thicke vpon the Earth, and then a layer of earth vpon it, then another layer of Braken, and another layer of earth, and ſo layer vpon layer till the heape be as bigge as you intend it, and ſo left to rot all the Winter following, there cannot be a better meanure for any arable ground; for you ſhall vnderſtand that the earth will ſo rot the Braken, and the braken ſo ſoake into the earth, that they will become both one rich ſubſtance. And herein you ſhall note, that whenſoeuer you would haue any ſubſtance (of what condition ſoeuer) quickely to rot and turne to meanure, that the onely way is to mixe it with earth, and that will in ſhort ſpace bring it to rottenneſſe. Now this Braken and

The inriching of ordinary meanure.

The haires of beaſts hides.

Of Braken.

To rot dung quickly.

and earth thus rotted, you ſhall lay vpon your land as you do your ordinary dung of cattell, and then ſow your ſeed being ſteept, as aforeſayd.

Of Malt-duſt. Next, your Malt-duſt which is the ſprout, come, ſmytham, and other excrements of the malt, is an excellent meanure for arable land, allowing three quarters there. of for an acre, and ſtrowing it vpon the land after it is plowed and ready to be ſowne.

Of rotten Pilchers and garbage There is another meanure, which albe it is not plentifull euery where, yet in ſome places it is, and not inferiour to any meanure before ſpoken of, and that is your rotten Pelchards after the oyle is taken from them, and the carcaſſes caſt to the dung hill, this layd on the land, and plowed in, bringeth corne in great abundance, and no leſſe doth the carcaſſes and garbage of all kind of fiſh whatſoeuer, eſpecially of ſea-fiſh.

Of bloud offals. Laſtly, the bloud, entrals and offall of any beaſts is an excellent meanure for any kind of graine, plant, or tree, but eſpecially for the vine, for to it there is no nouriſhment of greater force or efficacie: alſo, if this bloud be tempered with Lyme it is exceeding comfortable for graine, and deſtroyeth wormes, and other creeping things which hurt corne, onely it muſt not bee applied preſently, but ſuffered for a little time to rot, leaſt the too much heate thereof might ſcorch and doe hurt to the roote of the corne: this meanure is to be laid on the earth when you ſow it, and ſo the ſeede and it harrowed or plowed in together, which done after the order of good workemanſhip, there is no doubt of the increaſe.

Chap. 11.

How to enrich for Corne, any barren, rough, wooddy ground being newly ſtubbed vp.

IF you haue any barren wooddy ground which is newly ſtubbed vp, and that you would conuert it to arable, you ſhall then take a great quantitie of the vnderwood, or worſt briſh-wood which was cut from the ſame, and in the moſt conuenienteſt place in the field, as in the middeſt, or neere there about, you ſhall frame it into a broad hollow pyle, and then couer it all ouer with great ſodds of earth, which done, ſet fire on it, and leaue no part thereof (either wood or earth) vnburnt, then take thoſe aſhes and ſpread them all ouer the field, ſo farre foorth as you meane to plow vp, then with a good ſtrong plow fallow the ground as deepe as you can, and ſo let it reſt till it be almoſt *May*, then take either Ferne, Stubble, Straw, Heath, Furres, Sedge, Beane ſtalkes, or any other waſt growth, take I ſay either any one, or more of theſe, or all together, as you ſtand poſſeſt of them, and burne them to aſhes, and therewith couer your land the ſecond time, and then in Summer ſtirre it, within a Moneth after ſoyle it, then at the beginning of October, or a little before, plow it againe, and ſow it with Rye the firſt crop, and you ſhall ſee the increaſe will be very plentifull. the next yeare you may ſow it with Wheate, the third yeare with Barley, the fourth yeare with Peaſe, Lupins, Fetches, or any other Pulſe, and then beginne with Wheate againe; for it is credibly ſaid, that

Wood-aſhes.

Aſhes of Ferne, Straw, &c.

this manner of dreſſing theſe barren, woodie grounds, ſhall maintaine and keepe the earth in good heart and ſtrength (in the worſt places) for the ſpace of foure yeares; in that which is any thing reaſonable for the ſpace of ſixe yeares; and where there is any ſmall touch of fertility for the ſpace of ſixteene yeares; of which there are dayly experiences in *Fraunce*, about the forreſt of *Ardenn*, and ſome with vs here in *England* in many woodie places.

Chap. 12.

The manner of reducing againe, and bringing vnto their firſt perfection all ſorts of grounds which haue beene ouerflowed, or ſpoyled by ſalt-water, or the Sea-breach, either arable, or paſture, as alſo the enriching or bettering of the ſame.

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The difficulty of this labour.

THere is nothing more hard or difficult in all the art of husbandry, then this point of which I am now to intreat, as namely, the reducing and bringing vnto their firſt perfection all ſorts of grounds which haue beene ouerflowed or elſe ſpoyled by the Sea-breach, and bringing in of too great abundance of ſalt water, which to ſome men (of little experience, and free from thoſe dangerous troubles) may appeare a matter very ſleight, and the wound moſt eaſie and curable, and the rather, becauſe in all my former relations and demonſtrations touching the bettering of euery ſeuerall ſort of ground, I do apply as one of my chiefeſt ingrediens or ſimples, by which to cure Barrenneſſe, Salt ſand, Salt weeds, Salt water, Salt brine, Aſhes,

The vertues of Salt.

es, Lime, Chalke, and many other things of salt nature, as indeed all meanures and marles whatsoeuer must either haue a salt quality in them, or they cannot produce fruitfulnesse; so that to argue simply from naturall reason, If salt be the occasion of fruitfulnesse and increase, then there cannot be much hurt done by these ouerflowes of the salt water, but that it should rather adde a fattening and enriching to the ground then any way to impouerish it, and make it incapable of growth or burthen. But experience (which is the best Mistresse) shewes vs the contrary, and there is nothing more noysome and pestilent to the earth then the superabundance and too great excesse of saltnesse; for according to our old Prouerbe of *omne nimium*, that too much of euery thing is vitious: and as we see in the state of mans body, that yone strongest poysons, as *Antimony* or *Stibium*, *Coloquintida*, *Rubarb*, and the like, taken in a moderate nature, are most healthfull, and expell all those malignant qualities which offend the body, and occasion sicknesse; but taken in the least excesse that can be deuised, they then (out of their virious and naughty qualities) so suddenly and violently destroy all health, and bring vpon the body inuitable death, and mortality; so is it with this matter of salt, and the body of the earth, for as by the moderate distributing thereof, it correcteth all barren qualities, disperseth cold and naughty vapours, and yeeldeth a kinde of fatnesse and fruitfulnesse, whereby the Seede is made more apt to sprout, and the ground more strong and able to cherish the same till it come to perfection, through the sharpe, warme, and dispersing qualitie thereof; so being bestowed in too great abundance and excesse, whereby the earth is surcited, and as it were ouer-

The vices which come from Salt.

The abuse of Salt in excesse.

come and drowned vp with too much of this naturall goodneſſe and helpfull quality, then all his proper vertues turne to egregious vices, as his wholſome ſharpneſſe to a fretting, gnawing, and deſtroying greedineſſe; his comfortable warmeneſſe to a conſuming and waſting fierineſſe, and his gentleneſſe in diſperſing; to an infectious and venomous pollution, by the ioynt qualities of all which together, the ground is made neither fitte to receiue any thing from the hand of the Husbandman, nor yet to produce or bring forth any thing of it ſelfe, becauſe euery good quality is abuſed or expelled, and nothing but vnnaturalneſſe and ſterility left; which like a Serpent lodgeth in the ground and will ſuffer no good thing to haue ſociety with it; and theſe are the effects and miſchiefes which are occaſioned by theſe Sea-breaches or inundations of the ſalt water.

Offalt moderately vſed.

It is certaine that although in the ſalt marſhes, where the Sea commeth in at certaine times and onely waſheth or ſprinkleth the ground all ouer and ſo departeth, there is neither want of graſſe, nor yet complaint of any euill quality in the graſſe, yet it is moſt certaine that no ouerflow of ſalt water how little or moderate ſoeuer, can be truely ſaid to be wholeſome for any kind of graſſe ground whatſoeuer; for graſſe is compounded of an infinite world of plants and ſimples, and moſt of them of ſeuerall natures and qualities, ſo that if it giue nouriſhment to one, yet it may deſtroy tenne; neither doe I finde it by any of the Ancients ſimply and properly applied vnto the graſſe grounds, but firſt vnto the arable, in which hauing ſpent its primary or firſt ſtrength vpon the ſeede (which is a great and greedy deuourer or eater vp of the ſtrength and

No ouerflow of ſalt water good for graſſe.

and fatneſſe of the earth) it then prepares and makes the ground more able and fit to bring forth graſſe, and that of the beſt and fineſt kind, for although the Maſters of the Salt marſhes finde a ſingular and rare profit in thoſe grounds for the feeding, breeding, fatting, and ſuſtaining of their great flockes of ſheepe, which vpon theſe ſalt grounds, they ſay, will neuer rot or periſh by that vniuerſall diſeaſe, yet muſt they not impute that to the great quantity, goodneſſe, or any growth in the graſſe, but to the ſalt which they licke vp in the graſſe, and to the ſalt qualitie of the graſſe, which is not onely an antidote or preſeruatiue againſt that noyſome and peſtilent mortality, but alſo a delightfull and pleaſant foode wherein thoſe cattell take more contentment then in any other thing whatſoeuer; ſo that I muſt neceſſarily reſt vpon this concluſion, that as but moderate waſhing and ouerflowing of ſalt waters are no certaine or particular great helpes vnto graſſe grounds, eſpecially if they be applyed thereunto, and to that purpoſe ſimply at the firſt, without any other preparatiue or working by a former meanes, as by tillage, digging, deluing, or the like; ſo the exceeding great inundations or Sea-breaches which lye long ſoaking and ſinking into the earth muſt needs be a certaine, infallible, and almoſt incurable cauſe of barrenneſſe, eating, ſpoyling, and conſumtng the very rootes of all manner of plants, trees, and growthes, by which the ground is made vtterly incapable of generation or bringing forth: and therefore where theſe great inundations or ouerflowings cannot bee either preuented or auoyded, but as the ſeaſons of the yeare they doe and muſt hold their courſes, there I would not wiſh any man to beſtow eyther his labour or his

The grounds of the ſalt Marſhes.

A true cauſe of barrenneſſe.

Where this annoyance is incurable.

Where it is curable.

coſt, for it is loſſe of time and loſſe of ſubſtance: but where it is to bee preuented or auoyded by induſtry, or that thoſe ouerflowings or Sea breaches come and happen by caſualty or change, as either by the vnnaturalneſſe and ſuperabundance of tydes being driuen in by the violence and impetuoſneſſe of outragious winds, or by any neglect or breach in the Sea wall,, or other miſhaps of the like nature, which happeneth ſometimes ſcarce once in an age, at the moſt not aboue once or twice in many yeares; in theſe caſes there is moſt certaine remedy, and the grounds ſo ſpoyled and waſted, may by art and induſtry be againe reduced and brought to the former perfection and goodneſſe; nay many times amended and freed from many faults and ſterile qualities, to which it was either naturally addicted, or elſe by chance and accident grew thereunto, by continuall wearying and imployment, without reſt, or refreſhing by the artificiall meanes of wholeſome meanures, or other ſtrengthnings which ought to bee applied before thoſe faults grew into extremities.

The manner of the cure.

Now touching the cure of theſe grounds which are thus worne out, decayed, and made barren by theſe inundations of ſalt water, the owner thereof is firſt to draw into his conſideration, that as the malignity and euill quality of the earth is growne by too much fretting, gnawing, and waſting of the ſalt, ſo it muſt be allayed and qualified by a quite contrary condition, which is freſhneſſe: the contrary then to ſalt water,

One contrary helpes another.

muſt of neceſſity be freſh water, ſo that you are to caſt about in your iudgement, and by the view, ſituation, and leuell of the ground (which for the moſt part can haue but little difficulty in it, becauſe theſe grounds vpon which the Sea thus breaketh, muſt euer be the loweſt of all other, ſo that a true deſcent comming

ming vnto it, and a true aſcent comming from it, there is no hardneſſe to conuey any water courſe thereunto) looke how to bring a freſhneſſe which may conquer & ouercome this ſaltnes, and that muſt therefore be freſh water, which by channels, ditches, furrowes, ſluces, and the like, you may bring from any freſh riuer, ſpring, pond or other freſh water courſe (though remoued ſome diſtance of miles from the place to which you would conuey it) to the very place to which you deſire to haue it, and with this freſh water you ſhall waſh and gently drown ouer ſo much of your ſpoiled ground as you ſhall be able reaſonably to deale with all in other coſts & labours for that yeare; and if you haue plentifull ſtore of freſh water, then hauing (as I ſaid) drownd it ouer gently, about foure inches, or halfe a foot deepe, you ſhall ſo let it lie two or three daies; then draine away that water by the help of back ditches, or by ſluces made for that purpoſe, which if the ſituation of the ground deny you, and that there is no ſuch conuenient conueyance, then you ſhal in the loweſt part of the ground (either ioyning vpon ſome other ſpoiled ground, or vpon the Sea-wall or banke) place a Coy, which may either caſt the water into the other ground, or elſe ouer the wall and banke into the ſea; and hauing thus drained away the firſt water, you ſhall then open your ſluces of freſh water againe, and drowne your ground ouer the ſecond time, and do in all things as you did before, & thus according to the plentifulnes of your freſh water, you ſhal drown your ground, or at leaſt waſh it ouer with freſh water twice a weeke before the beginnning of the Spring, and if the ſalt water haue laine long, or be but new departed, then you ſhall vſe your freſh water for ſome part of the Spring alſo.

The watering with freſh water.

How to draine away the freſh water.

How oft to drowne the earth.

Now ſome may obiect vnto me here (and it is a matter altogether vnlikely (that in ſome of theſe

Helpes if freſh water be wanting

places where theſe inundations and breaches are, it is impoſſible either to finde freſh water, or to bring freſh water vnto them, becauſe all the ſprings for many miles about being made naturally brackiſh, and the riuers by the infection of the ſalt tides, hauing loſt the greateſt part of their ſweete freſhneſſe; the queſtion now reſteth, whether theſe brackiſh waters are wholeſome for this purpoſe, I or no? To this I muſt needes anſwer, that they cannot in any wiſe be good for theſe ſpoyled grounds, becauſe the earth naturally is of an attractiue and drawing condition, ſucking and gathering vnto it ſelfe any thing that is of a ſharpe, ſweete, or ſower taſte, and eſpecially ſaltneſſe, ſo that being couered with thoſe brackiſh waters, it will draw from them onely their ſalt (of which it hath too much already) and no part of the freſhneſſe which ſhould qualifie and amend it: therefore if either your ground be thus ſituated, or your neceſſities thus vnſupplied, it is better that you rather forbeare this labour of waſhing or drowning your earth (though it be the firſt, the ſpeedieſt, and ſureſt cure of all other) then by watering it with infinite and vnwholeſome waters, rather increaſe the miſchiefe, then any way delay it.

Whether brackiſh water be wholeſome.

The firſt time of plowing, and the obſeruations therein.

After you haue watered your ground (if it be a worke impoſſible to be attained vnto) or otherwiſe neglected it (being a thing not poſſible to be found) you ſhall then about the latter ende of *March* plow vp all the ground with a good deepe ſtitch, turning vp a large furrow, and laying it into lands, raiſe them vp as much as you can, and make them round, then looke of what nature or temper the earth is, as whither it be fine ſand, rough gravell, ſtiffe clay, or a mixt earth, or any of theſe contraries together: If it be a fine ſand, either white, red,

How to mixe earths.

or

browne, it matters not whether, then you shall take any clay earth which is free from these salt washings, being of a meane or small stiffenesse, and likewise of as meane and little richnesse, which being digged out of some banke, pit, or other place where least losse is to be had, you shall carry it in tumbrels or carriages to the new plowed ground, and there first lay it in heapes as you doe meanure, then after spread it all ouer the land, and being dry, with clotting beetles breake it as small as you can possibly, for this hungry clay being of no rich or fat condition, will so sucke and draw the salt into it, that it will take away much of the euill quality, and mixing his tough quality with the loose condition of the sand, they will both together become apt for fruitfulnesse and generation.

The mixture for Grauell.

If the soyled ground be a rough hard grauelly earth, then you shall mixe or spread vpon it the best and richest fresh clay you can get, or if there be any such fruitefulnesse neere about you, then with a good blew marle, for that is the coolest and the freshest, and will the soonest draw out the salt from the grauell, and giue it a new nourishment, whereby any seed shall be fed and comforted which is cast into it.

The mixture of Clay.

If the spoyled earth be of it owne nature a stiffe and tough clay, which is but seldome found so neere the sea shoare, then after the plowing, you shall mixe it, and couer it ouer with the freshest and finest sand that you can possibly get, for that will not onely separate the salt from the clay, and take away the naturall toughnesse and stiffenesse of the same, which hindereth and suffocateth the tender sproutes, so as they cannot easily get out of the earth, but also by lending a gentle warmth, wil asswage the cold quality of the clay,

and

and make it bring forth moſt abundantly.

The mixture of mixt earth.

Laſtly, if the ſame ſpoiled earth be of a mixed quality, then you ſhall looke whether it be binding or looſening, if it be binding, then you ſhall mixe or couer it with fine freſh ſand, if looſening, then with a reaſonable rich and tough clay, for ſo you ſhall bring it to an open and comfortable temper, making it able both to receiue, cheriſh, and bring forth the ſeede; which before either too much wet, or too much drineſſe did ſtifle and bind vp within the clots and mould, ſo as it had no ſtrength to beare himſelfe through the ſame.

The ſecond plowing.

When you haue couered your lands with this mixture, you ſhall then plowe it ouer againe before *Midſomer*, turning the new layd earth vnder the old earth, and as ſoone as that labour is finiſhed, you ſhall then lade foorth your meanure or compaſſe vnto it, in which you are to haue a great care what meanure you elect for this purpoſe, for it is not the richeſt and fatteſt meanure (as your Pigeons dung, or Pullens dung, Lime, Chalke, or aſhes, your Horſe dung, your houſelings vpon high-wayes, your beaſts houes, your horne ſhauings, your Hempe-weede, or any other weede which groweth neere the ſeydge of the ſea, neither your Oxe or Cow-dung, though of all before named, that is the beſt which doth the moſt good vpon theſe ſpoyled grounds, becauſe they haue all in them a ſtrong quality of ſaltneſſe or ſharpeneſſe, which will rather adde then diminiſh the euill quality of the earth, but inſtead of theſe you ſhall take the mudde of dried bottomes of Lakes, Ponds, and Ditches of freſh water, and the moyſture or wetter ſuch mudde or bottomes are, the better it is, or Straw which is rotted by ſome freſh water courſe, raine, or the like, by no meanes

Election of meanures.

The beſt meanure.

that

that which is rotted by the vrine or ſtale of Horſe or cattell, for that is the ſalteſt of all other; or you may take any weedes which you ſee grow in freſh Riuers, Ditches, Ponds, or Lakes, eſpecially thoſe which grow at the bottomes of Willow, Sallow, or Oſier trees, or you may take the old ragges of woollen cloth, or any other meanure which you know to be the wolleſt or freſheſt, and with any of theſe or all of theſe together, you ſhall very plentifully couer your ground all ouer, and immediatly vpon the couering or laying on, ſee you preſently plow it, land after land; for to giue it any long reſpite after it is ſpread, the Sunne out of his attractiue and ſtrong nature will exhale and draw out all the vertue from your meanure, and ſo ſpoyle much of your labour.

The ordering of the meanure.

The third plowing.

When you haue thus meanured it, and plowed it, you may then let it reſt till *Michaelmas*, at which time you may plowe it the laſt time, and then ſowe it with the ſtrongeſt and hardeſt Wheate you haue, of which the white Pollard is the beſt, and there is no queſtion but if it be ſafe from a ſecond Inundation, your croppe will both be plentiful and rich, and alſo acquit and pay largely for all your former charges. The ſecond yeare you neede but onely plow it as aforeſayd; and then ſow it with good Hemp-ſeed, and be aſſured you will haue a braue crop ariſe thereof; then the third yeare you ſhall plow it as flat as you can, ſtill throwing it downe and not raiſing it vp at all, and then ſowe it with the beſt Oates you can get, according to the nature and ſtrength of your countrey, and be ſure to harrow it well, and to breake euery clot, and make the mould as fine as is poſſible, and the next yeare after your Oates, lay it for graſſe, and I dare be bold, it will beare reaſonable meadow;

The laſt plowing, and the Sowing.

The ſecond yeare ſowing and third.

Laying the earth for graſſe.

dow; yet would I not haue you this yeare to preſerue it for that purpoſe; but rather to graze it with ſheepe or Cattell, eſpecially ſheepe, of which I would haue you lay on good ſtore; for it matters not how neare or cloſe to the ground they eate it; for the next yeare it will be come to the fulneſſe of perfection; and be as profitable or more profitable ground then euer it was, and then you may apply or accommdate it for what vſe you pleaſe, either arable meadow, or for continuall grazing.

Of Grazing.

And thus much touching the manner of reducing a. gaine, and bringing vato their firſt perfection, all ſorts of groundes which haue beene ouerflowed or ſpoyled by Salt water, or the ſea breaches; whether it be arable or paſture; as alſo the enriching or bettering of the ſame.

Chap. 13.

Another way to inricch barren paſtures, or meadowes, without the helpe of water.

IF your Barren paſtures or meadowes be ſo ſeated that there is no poſſible means of waſhing or drowning them with water, you are then onely to reſtore and ſtrengthen them by the efficaſie of meanure or ſoyle, without any other helpe, and this may diuerſe wayes be done, as by thoſe manner of meanurings which I haue formerly treated of. But to goe a better and briefer way to worke, and more for the eaſe and capacity of the plaine Husband-man, when ſoeuer you ſhall bee poſſeſt

posſeſt of theſe barren paſtures, if the barrenneſſe proceede from ſand, or grauell, then ſome Husbands vſe to meanure the paſture ouer with the beſt clay they can get, firſt laying it in heapes, then ſpreading it, and laſtly with clotting beetles breaking it into as fine duſt as they can get it, and this labour they commonly perfoime as ſoone as they can after Harueſt when the latter ſpring is eaten, and the earth is moſt bare, but if the barrenneſſe proceed from an hungry, cold and dry clay, then they meanure it with the beſt mooriſh blacke earth which they can get, or with any moyſt meanure whatſoeuer, eſpecially and aboue the reſt, when the ſoyle that is digged out of olde ditches, ponds, or dried vp ſtanding lakes, and this earth muſt be layde plentifully vpon the ground in meanure heapes, as aforeſayd, that is to ſay, firſt in great heapes, then after broken and diſperſed ouer the whole ground, and laſtly broken into ſmall duſt, and mixed with the ſwarth of the ground, and this labour as the other is generally performed after the Harueſt as a time of moſt conuenience, and giuing the earth a fit reſpite to ſucke in the ſtrength and comfort of the new earth, and alſo hauing all the Winter after with his froſts, ſnowes, and ſhowers, to mellow, ripen and mixe together the one earth with the other, and doubtleſſe this is a moſt exceeding good Husbandry, and not to bee reſiſted or carpt againſt by any knowing or ſound iudgement, onely it is not the moſt abſoluteſt, or beſt of all wayes whatſoeuer, but that others may be found ſomewhat more neare, and ſomewhat more commodious.

Clay meanure.

Moriſh earth.

Therefore whenſoeuer you ſhall be owner of any of theſe barren paſtures, or meadowes, of what nature or condition ſoeuer the earth be, whether proceeding

The beſt way to inrich paſture or meadow.

from

from grauell, ſande, clay, or peſtered with any other malignant quality whatſoeuer, to reduce it to fertility and goodneſſe in the ſhorteſt time, and to the moſt profit; about the moneth of *March*, when all paſture grounds are at the bareſt, and doe as it were remaine at a ſtand betweene decreaſing, and increaſing, you ſhall beginne then to leade forth your meanure for the refreſhing of theſe Earths, and the meanure which you ſhall carry vnto theſe grounds, ſhall be the ſoyle of ſtreetes within Cities or Townes, or the parings and gatherings vp of the high-wayes much beaten with traueil, alſo the earth for two or three foote deepe which lieth vnder your dung-hill when the dung is remoued, and carried away, for this is moſt precious and rich mould, and is not alone excellent for this vſe, but alſo for the vſe of Gardens, for the ſtrengthning and comforting of all ſortes of tender plants, and for the vſe of Orchards, for the comforting both of olde and young Trees, when at any time their Roote are bared, or otherwiſe when there groweth any miſlike or decreaſing.

The ſoile of the ſtreetes, or high-wayes.

Earth vnder dung hils.

To inrich garden, or orchards.

You ſhall alſo take the fine earth or mould which is found in the hollow of olde Willow trees, riſing from the roote vp, almoſt to the middle of the tree, at leaſt ſo farre as the tree is hollow, for then this there is no earth or mould finer or richer.

The mould of willow trees.

Of all of theſe meanures, or of any one of them, or of as many as you can conueniently get, you ſhall leade foorth ſo much as may very plentifully meanure and couer your ground all ouer; you ſhall firſt lay it on the earth in reaſonable bigge heapes, that the Sunne may not exhale the goodneſſe out of it; and then at your beſt leaſure, and ſo ſoone as you can conueniently, you ſhall

ſhall ſpread it vniuerſally ouer the field, diſperſing it as equally as you can, vnleſſe your field be more barren in one place then in another, which if it be, then you ſhall lay the greateſt p'enty where it is moſt barren, and the leſſe where you find the greateſt fertility, yet by all meanes ſee you ſcant not any place, but giue euery one its due; for to doe otherwiſe would ſhewe much ill Husbandry.

Now it is the vſe of ſome Husband-men, that what mould or earth they lade out from ſixe of the clocke in the morning, till three of the clocke in the after-noone, that they make their Hinds ſpread in the euening before they goe to Supper, and queſtionleſſe it is a very good courſe, and worthy to be imitated of euery good Husband. The ſpreading of mould.

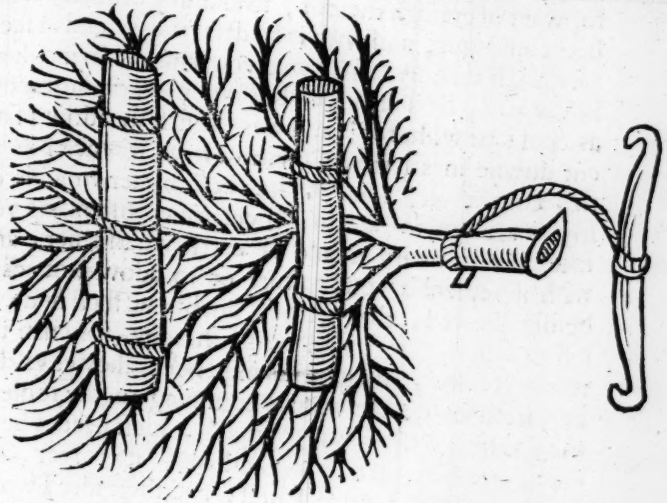
After you haue laide foorth your mould, and ſpread it all ouer your paſture or meadow, then you ſhall make ſome boyes, gerles, or other poore people, to picke and gather vp all the ſtones, ſtickes, or other vnneceſſary matter which might happen to be led foorth with the mould, and to picke and lay the paſture ſo cleane as is poſſible, which done, it is to be intended that yet notwithſtanding this ground will lye exceeding rough, both in reſpect of the clottes of earth, which will not eaſily be broken, as alſo in reſpect of naturall toughneſſe of theſe rich mould's which at this time being digged vp in the wet, will not eaſily be ſeparated or diſſolued; and therefore when you haue finiſhed the labours before ſayde; you ſhall let the clottes reſt till the Sunne and weather haue dried them, then after a good ground ſhower (obſeruing to take the firſt that falleth) you ſhall harrow all your ground ouer after this manner. Of ſtone gathering.

You

A new way of Harrowing.

You ſhall cut downe a pretty bigge white thorne tree, which we call the Hawthorne tree, and make ſure that it be wonderfull thicke, buſhy, and rough growne, which done, you ſhall plaſh it as flat as you can, and ſpread it as broad as you can, and thoſe branches or boughes which of neceſſity you muſt cut in ſunder, you ſhall againe plaſh and thruſt into the body of the Tree, binding them with cords or withes ſo faſt thereto, that they may by no meanes ſcatter or ſhake out, and if any place appeare hollow or thinne, and cannot come to lye hard, firme, and rough vpon the ground, then you ſhall take other rough buſhes and thruſt into the hollow places, and bind them from ſtirring, alſo till you haue made your plaſh full and equall in all places, and that all the roughneſſe may as in a flat leuell equally touch the ground, when you haue thus proportioned your Harrowe, you ſhall then take great logges of wood, or peeces of timber, and with ropes bind them on the vpper ſide of this rough Harrowe, that the poyſe or weight of them may keepe the rough ſide hard and firme to the earth, and then the Harrow will carry this proportion or figure.

To



To the bigge end of this Harrow, you ſhall fixe a ſtrong rope, with a Swingle-tree with Treares, Coller, and Hames, and one Horſe is fully ſufficient to drawe it round about the paſture or meadow, ſo with this Harrow you ſhall Harrow the ground all ouer, and it will not onely breake all the hard clots to a very fine duſt, but alſo diſperſe them and driue them into the ground, and giue ſuch a comfort to the tender rootes of the young graſſe then newly ſpringing, that it will double and treble the increaſe. And for mine owne part, this experience I my ſelfe haue ſeene vpon an extreame barren paſture ground in *Middleſexe*, where none of theſe good mou'ds or ſoyles could be got, but the Husband was faine to take all the rubbiſh and courſe earth, euen to the very ſweepings of his yard, and Of rubbiſh and ſweepings.

for want of enough thereof, to take any ordinary earth hee could get, and with it he dreſt the ground in ſuch ſort as I haue now laſt ſhewed you, and this being done in *Aprill*, he had in *Iune* following as good meadow as could be wiſht for, and was the firſt meadow I ſaw cut downe in all that Countrie: from whence I draw this concluſion, That where theſe better moulds or ſoyles are not to be had, if yet not withſtanding you take any ordinary mould or earth whatſoeuer, and with it repleniſh your paſture or meadow grounds as before ſhewed, that without doubt you ſhall finde an infinit commodity, and profit thereby; for euen the rule of Reaſon, and generall experience ſhewes vs, that any freſh or quicke mould comming to the roote of the Graſſe, when it is in ſpringing, muſt needes be an infinit comfort thereunto, and make it proſper, and ſhoote vp with a double haſt, and therefore I would haue euery husbandman to make much of the rubbiſh, ſweepings, parings, and ſpytlings of his houſe and yard, as alſo of ſhoutlings vp of the high wayes, backlanes, and other ſuch places, and eſpecially, if they bee any thing clayie, or moriſh, or ſandy mixt with any other ſoyle; for of them he ſhall finde great vſe, according to the husbandrie and experience already deſcribed.

Of ſoape-aſhes. Laſtly, there is not any thing that more enricheth paſture or meadow ground then Soape-aſhes, being thinly ſcattered and ſpread ouer the ſame; and this labour would euer bee done at the latter end of *Aprill*, for then graſſe is beginning to ſhoote vp, and at that time finding a comfort, the increaſe will multiply exceedingly.

CHAP.

Chap. 14.

How to enrich and make the most barrenneſt ſoyle to beare excellent good paſture or meadow.

TO ſpeake then of the bettering and enriching of theſe barren earths, and reducing them to good paſture or meadow, it is to be vnderſtood, that there are but two certaine wayes to compaſſe and effect the ſame, namely water or meanure. Two wayes to enrich earthes.

You are then when you goe about this profitable labour to conſider the ſituation of the earth, you would conuert to paſture, and to elect for this purpoſe the beſt of this worſt earth you can finde, and that which lyes loweſt, or elſe that which is ſo deſcending, as that the bottome thereof may ſtretch to the loweſt part of the continent, for the lower that ſuch grounds lie, the ſooner they are made good, and brought to profit: Next you ſhall conſider what burthen or graſſe it beares, and whether the graſſe be cleane and entire of it ſelfe (which is the beſt and likelieſt ſoile to be made fruitfull) or elſe mixt with other worſer growths, as thyſtles, heath, broome, or ſuch like, and if it be burthened with any of theſe naughty weedes, you ſhall firſt deſtroy them by ſtubbing them vp by the rootes, and by burning the vpper ſwarth of the earth with dry ſtraw mixt with the weedes which you ſhall cut from the ſame, then it ſhall be good for certaine nights both before the firſt and latter Spring to fold your ſheepe vpon this ground, and that not in a ſcant manner, but very plentifully, ſo as the dung of them may couer

ouer all the earth, and their feete trampling vpon the ground, may not onely beate in the dung, but alſo beate off all the ſwarth from the earth, that where the folde goeth, there little or no graſſe may be perceiued, then whileſt the ground is ſoft, and thus trampled, you ſhall ſow it all ouer with Hay ſeeds, and then with your flatte boorde beecles beate the ground ſmooth and plaine, which done, you ſhall then ſtrow, or thinly couer ouer the ground with the rotten ſtaddles of Hayſtacks, and the moyſt bottomes of Hay barnes, and ouer that you ſhall ſpread other ſtrong meanure, of which Horſe-dung, or Horſe-dung and mans ordure mixt together is the beſt, or for want of ſuch, either the meanure of Oxen, Kine, or other beaſts; and this meanure alſo you ſhal ſpread very thinne vpon the ground, and ſo let it lye till the Graſſe come vp through the ſame, which Graſſe you ſhall by no meanes graze or feede with your cattell, but being come to the perfectneſſe of growth, you ſhall mow it downe, and although it will bee the firſt yeare but ſhort and very courſe, yet it skilleth not, for the enſuing yeares, ſhall in the profit, and bring forth both ſo good graſſe, and ſuch plenty thereof, as reaſonably you can require: for this is but the firſt making of your ground, and alteration of the nature thereof, neither ſhall you thus dreſſe your ground euery yeare, but once in twenty, or fortie yeares, hauing plenty of water to relieue it. When therefore you haue thus the firſt onely prepared your ground by deſtroying the barren growth thereof, and by meanuring, ſowing, and dreſſing it, you ſhall then carefully ſearch about the higheſt parts of the ground, and the higheſt parts of all other grounds, any way neigh-

neighbouring round about it, and ſomewhat aboue the leuell thereof, to ſee if you can finde any Springs in the ſame, (as doubtleſſe you cannot chuſe but doe, except the ground be of more then ſtrange nature,) and the heads of all ſuch Springs as you ſhall finde, you ſhall by gutters and channels draw into thoſe ditches which ſhall compaſſe your meadow ground about, obſeruing euer to bring the water into that part of the meadow ditch which euer lyeth higheſt, and ſo let it haue a currant paſſage through the ditches downe to the lower part thereof, and ſo into ſome Lake, Brook, or other channell, and in this ſort you may bring your water a mile or two: Nay I haue ſeene water brought for this purpoſe, three or foure miles, and the gaine thereof hath quit the charge in very plentifull manner. Of watering grounds.

But if you cannot finde any Springs at all, nor can haue the helpe of any Lake, Brooke, Riuer, or other Chanell of mouing water, (which is a doubt too curious, as being caſt beyond the Moone) you ſhall then not onely caſt ditches about this your meadow ground, but alſo about all other grounds which ſhall lye about, and that in ſuch ſort, that they all may haue no paſſage but into the vpper part of the meadow ditch, ſo that what raine ſoeuer ſhall fall from the skie vpon thoſe earths, it ſhall be receiued into thoſe ditches, and by them conueyed into the meadow ditch: and to augment the ſtore of this water, you ſhall alſo in ſundry parts of thoſe vpper grounds which are aboue the meadow, in places moſt conuenient, digge large Ponds, or Pits, which both of themſelues may breed, and alſo receiue all ſuch water as ſhall fall neere about them, and theſe Ponds or Pits being filled (as in the Winter Helpes in the watering.

time neceſſarily they muſt needs be at euery glut of raine) you ſhall preſently by ſmall draines made for that purpoſe, let the water out from them into the ditches, and ſo into the meadow ditch, and ſo ſtopping all the draines againe, make the Ponds or Pits capable to receiue more water.

When and how to water.

When you haue thus made your ground rich with water, and that you ſee it flow (as in the winter time neceſſarily it muſt) in plentifull manner through all your ditches, you ſhall then twice or thrice in the yeare, or oftner, as you ſhall then thinke meete in the moſt conuenienteſt places of the meadow ditch, ſtop the ſame, and make the water to riſe aboue his bounds, and to ouerflow and couer your meadow ground all ouer, and if it be a flat leuell ground, if you let the water thus couering it to lye vpon the ſame the ſpace of foure or fiue daies or a weeke, it ſhall not be amiſſe; and then you may water it the ſeldomer. But if it lye againſt the ſide of a hill, ſo that the water cannot reſt vpon the ſame, then you ſhall waſh it all ouer, leauing no part vnmoiſtned, and this you ſhall doe the oftner, according as the weather ſhall fall out, and your water grow more or leſſe plentifull.

The beſt ſeaſon for watering.

Now for the beſt ſeaſon or time of the yeare for this watering of meadowes, you ſhall vnderſtand, that from *Allhallon tide*, which is the beginning of *November* (and at which time all after growth of meadowes, are fully eaten, and cattell for the moſt part are taken vp into the houſe) vntill the end of *Aprill* (at the which time graſſe beginneth to ſpring and ariſe from the ground) you may water all your meadowes at your pleaſure, without danger, if you haue water enough at your pleaſure, and may ſpend or ſpare at your will;

yet

yet to doe it in the beſt perfection, and whereby your ground may receiue the greateſt benefit; you ſhall vnderſtand that the onely time for the watering of your meadowes, is immediately after any great Fluxe of raine, falling in the Winter any time before *May*, when the water is moſt muddy, foule, and troubled, for then it carieth with it a ſoyle or compaſſe which being left vpon the ground, wonderfully enricheth it, and makes it fruitfull beyond expectation, as daily is ſeene in thoſe hard countryes where almoſt no graſſe growes but by this induſtry: And here you muſt obſerue, that as you thus water one ground, ſo you may water many, hauing euer reſpect to beginne with the higheſt, and ſo let the water paſſe out of one ground into another vntill it come vnto the loweſt, which commonly is euer the moſt flat and leuell, and there you may let the water remaine ſo long as you thinke good (as was before ſhewed) and then let it out into other waſte ditches or riuers. And here you ſhall know that this loweſt ground will euer be the moſt fruitfull, aſwell becauſe it lieth the warmeſt, moyſteſt, and ſafeſt from ſtormes and tempeſts, as alſo becauſe what ſoyle or other goodneſſe this ouer-flow of water, or the raine waſheth from other grounds, it leaueth vpon this, and ſo dayly increaſeth the fertility, from whence you ſhall gather, that at the firſt making of theſe meadow grounds you may beſtow leſſe coſt of meanure and other charges vpon this loweſt, flat, leuell ground, then on the higher: and ſo by that rule alſo obſerue to beſtow on the higheſt ground and the higheſt part of the higheſt ground euer the greateſt abundance of meanure, and ſo as you ſhall deſcend lower and lower, to lay your meanure thinner and thinner, yet not any

part vtterly vnfurniſhed and void of Compaſſe, yet as before I ſaid you are to remember that theſe meadow grounds neede not this much vſe of meanure (hauing this benefit of water, and the firſt yeares dreſſing as was ſhewed in the beginning of this Chapter) aboue once in twenty yeares; nay it may be not aboue once in a mans life time.

And here alſo is to be conſidered, that the water which commeth from Clay or Marle grounds, being thicke, muddy and pudly, is much better and richer then that which commeth from ſand, grauell or pibble, and ſo runneth cleare and ſmooth, for that rather doth waſh away and conſume the goodneſſe of the ground, then any way adde ſtrength thereunto.

Chap. 15.

Of the enriching and dreſſing of barren grounds, for the vſe of Hempe or Flaxe.

Grounds ill for Hempe or Flaxe.

YOu ſhall vnderſtand there are two ſorts of grounds which out of their owne natures vtterly refuſe to beare Hempe or Flaxe; that is, the rich ſtiffe blacke clay, of tough, ſolid, and faſt mould, whoſe extreame fertility & fatneſſe giueth ſuch a ſurcharge to the increaſe of the ſeede, that either with the rankneſſe, it runneth all into Bun and no Rind, or elſe the ſeede being tender, and the mould ſad and heauy, it burieth it ſo deepe therein, that it can by no meanes get out of the ſame, but lies choaked and conſumed without profit, the other is the moſt vilde and extreame barren ground, which by reaſon of the climate wherein it lies, is ſo exceeding ſterile and vnfruit-

fruitfull that it will neither beare theſe ſeeds, nor any other good ſeede; and of theſe two ſoyles onely I purpoſe in this place to intreat, for with ſuch ſoyles as will naturally and commodiouſly beare theſe ſeeds, I haue nothing to doe, in that I haue ſufficiently written of them in mine *Engliſh Husbandman*, and *Engliſh Huſwife*, which are Bookes onely for good grounds, but this for all ſuch grounds as are vtterly held without cure.

To beginne then with the ſtiffe blacke Clay, which albeit be very rich for Corne, is moſt poore for theſe ſeeds, when you would reduce and bring it to beare Hempe or Flaxe, which neere vnto the Sea Coaſt, is of greater price and commodity then Corne any way can be, eſpecially adioyning vnto any place of fiſhing, in reſpect of Nets and other Engines, which is to be made of the ſame, and which being dayly waſted and conſumed, muſt likewiſe be daily repleniſhed: You muſt firſt with a ſtrong plow, fit for the nature of ſuch land, plow vp ſo much ground as you intend to ſow Hempe or Flaxe vpon, about the middeſt of *May*, if the weather be ſeaſonable, and the ground not too hard: if otherwiſe, you muſt ſtay till a ſhower doe fall, and that the earth be moiſtned, then ſhall you hacke it and breake the clottes in ſmall pieces, then with the ſalt Sea-ſand, you ſhall ſand it very plentifully, but if that be not to be gotten, and that you be very well aſſured of the naturall richneſſe of the earth, you ſhall then ſand it with the beſt red ſand you can get or find neere vnto you, and vpon euery Acre of ground you thus ſand with freſh ſand, you ſhall ſow three buſhels of Bay-ſalt, and then plow vp againe the earth, ſand and ſalt together, which would be done about the latter end of the yeare, as after *Michaelmas*, and

Blacke Clay for Hempe, &c.

and ſo let the ground reſt till ſeede time; at which time you ſhall firſt before you plow it, go downe to the low rockes on which the ſea beates, and from thence with dragges and other Engines, gather thoſe broad leaued blacke weedes, which are called Orewood; and growe in great tufts and abundance about the ſhoare, and theſe Weedes you ſhall bring to your Hemp-land, and couer it all ouer with the ſame, and then you ſhall plow it againe, burying the weeds within the earth.

And herein is to be obſerued, that in any wiſe you muſt lay theſe weedes as wet vpon the land, as when you bring them out of the ſea, prouided ſtill that you adde no other wet vnto them but the ſalt water, for ſo they are of all ſoyles or meanures whatſoeuer, the onely beſt and fruitfulleſt, and moſt especially for theſe ſeedes, and breed an increaſe beyond expectation.

When you haue thus plowed ouer the ground, you ſhall then hacke it againe, then ſowe it with either Hempe or Flaxe-ſeede, which you pleaſe, and after it is ſo ſowne, you ſhall then harrow it (and not before) and you ſhall be carefull to harrow it into as fine mould as you can, and this mould is likely to runne fine enough, as well by reaſon of the fertility, as alſo of the mixture; yet what clots you cannot breake with your Harrowes, thoſe you ſhall breake with your clotting Beetles, and ſuch like tooles: then after the firſt great ſhower which ſhall fall after your ſowing, you ſhall runne ouer your land thus ſowne with your backe Harrowes, that is, with a paire of large Harrowes, the wrong ſide turned vpward, to wit, the teeth turned from the earth, and the backe towards the

the earth; and if neede be, you ſhall lay vpon the Harrowes ſome indifferent heauy peece of wood which may keepe the backe of the harrowes cloſer to the ground, and ſo goe ouer all the earth, and lay it as ſmooth and light as is poſſible, without leauing the ſmalleſt clot that may be vnbroken. Now if the ground be ſowne with Hempe, you ſhall not thinke of weeding it at all, becaule Hempe is ſo ſwift a grower, and ſuch a poyſon vnto all weedes, that it ouer-runneth, choaketh, and deſtroyeth them; but if it be ſowne with Flaxe or Lyne, which is a much tenderer ſeede, and bringeth forth more tender leaues and branches, then you ſhall watch what weedes you ſee ſpring vp, and in their firſt growth plucke them vp and caſt them away till you behold your Flax or Line to be growne aboue the weeds, and then you may let it alone alſo, for after it hath once gotten height, it will not be ouergrowne with weedes.

Now touching the other ſoile, which through the extreame barrenneſſe thereof, refuſing to bring forth any good fruite at all; you ſhall in all points dreſſe it as you dreſt your plaine clayes, deſcribed in the ſecond Chapter of this Booke, beginning at the ſame time of the year that is then appointed, or (if more neceſſary occaſions hold you) if you begin later it ſhal not be amiſſe, and then at *Michaelmas* you ſhall plow it ouer the ſecond time, and meanure it with the ſea weedes, and ſo let it lye at reſt till *March* (which is ſeed time) and then plow it againe, and meanure it with the ſea weedes againe, and after the plowing you ſhall hacke it, and if in the hacking you find the earth ſtiffe and tough, then you ſhall harrow it before you ſow it, then ſow it and harrow it againe, breaking the earth ſo ſmall and laying it ſo

Making of ill earth beare, &c.

ſo ſmooth as poſſible you can, vſing the helpe both of the clotting beetles and all other tooles which may be anaileable for breaking the earth, and making the mould as fine as any aſhes, then after the firſt great ſhewer of raine, perceiuing the ground to be well moyſtned, you ſhall inſteed of the backe harrowes (which vpon this earth may be too light) take the great rouler which is deſcribed in the Booke of the *Engliſh Husband man*, being a great round peece of timber of many ſquares, drawne either by horſe or oxen, but a ſingle horſe is beſt. both in reſpect of much treading the ground, as alſo for the ſwift going away or drawing of the ſame: for the ſwifter it is drawne, the better it breaketh the ground; and the lighter it leaueth the mould: and with this rowler you ſhall runne ouer and ſmooth your ground very well, leauing no clot vnbroken, and ſo let it reſt.

Weeding. As for the weeding of this ground, you ſhall not reſpect it at all, for naturally it will put vp no weede, the very ground of it ſelfe being a very great enemy thereunto, nor ſhall you neede to dreſſe this ground in the forme beforeſayd, aboue once in eight or ten yeares: onely euery ſeed-time when you plow it (as you ſhall not neede to plow it at any time, but ſeede-time onely) you ſhall before the plowing, couer or meanure the land with the ſea weed before ſpoken of, which will giue ſtrength enough to the ground, without any other aſſiſtance.

CHAP.

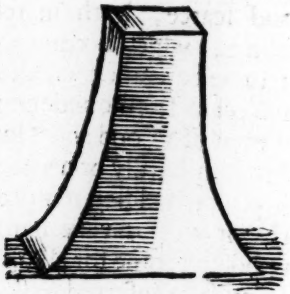
Chap. 16.

The manner of ſtacking of all kind of Graine or Pulſe with greateſt ſafety, and leaſt loſſe.

IN Theſe barren and hard countries, of which I haue formerly written, all ſorts of buildings are exceeding coſtly and ſcarce, both in reſpect of the clime, which is commonly moſt extreame cold, mountainous, and much ſubiect to ſtorme and tempeſt, as alſo through the great want of Wood and Timber, which in thoſe hard ſoyles doth hardly or neuer proſper; and therefore in ſuch places building muſt bee both ſmall and decre, ſo that it will be very hard for the Husband-man to haue houſe-roome for all his Corne, but that of neceſſity he muſt be inforced to ſtacke much, or the moſt part of his corne without the doores, which albeit it be a thing very vſuall in this Kingdome; yet is it in many places ſo inſufficiently done, that the loſſe which redounds thereby (partly by the moyſture of the ground, which commonly doth rot and ſpoyle at leaſt a yard thickneſſe of the bottome of the ſtacke next the ground, and partly through Mice, Rats, and other vermine, which breedeth in the ſtacke, doe eate and deuoure a great part thereof; as alſo through many ſuch like negligent cauſes) is greater then a good Husband may with his credite be guilty of, or a profitable Husband will by any meanes ſuffer to be loſt ſo negligently.

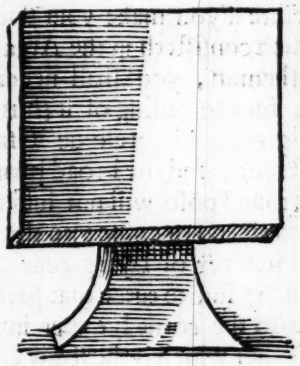
To ſhew then the manner how to ſtack or mow your corne without the doores, in ſuch ſort, as neither the ground

ground ſhall rot it, nor theſe vermines deſtroy it, nor any other loſſe come to it by way of ill Husbandry, you ſhall firſt cauſe foure peeces of timber, or foure ſtones to be hewed broad and round at the nether end, like the faſhion of a Suger-loafe, or this figure.

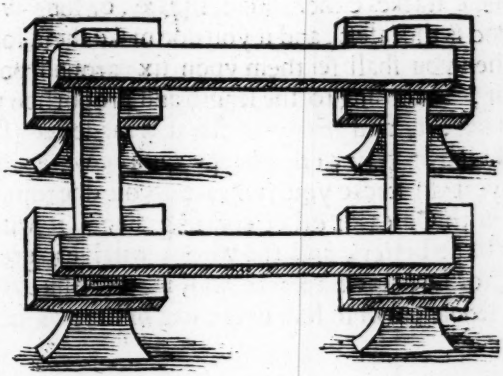


And theſe peeces of wood or ſtone ſhall be in length three foote or thereabout, and in compaſſe or bredth at the bottome, two foote, or a foote and a halfe, and at the top not aboue one foote: theſe foure peeces of wood or ſtone you ſhall place in your ſtack-yard, or other conuenient place neere your thraſhing-floore, and you ſhall place them foure ſquare, of an equall diſtance one from another, then you ſhall cut out foure ſmooth boardes of two inches and a halfe thicke at the leaſt, and full three foote ſquare euery way, and theſe boardes you ſhall lay vpon the heads or narrow tops of theſe ſtones or peeces of timber, according to this Figure.

Then



Then ſhall you take ſtrong ouer-lyers of wood, and lay them foure-ſquare from one board to another, according to this Figure.



And then vpon thoſe ouer-lyers you ſhall lay other ſmaller poles cloſe one by another, and then vpon them you ſhall mow or ſtack all your Corne, whether it be Wheate,

Wheate, Barley, Oates, Peaſe, or any other kinde of graine, and be ſure if you make your ſtacke handſome and vpright, which conſiſteth in the Art and workmanſhip of the workeman, you ſhall neuer receiue loſſe in your corne, for the raiſing of it thus two or three foote from the ground will preſerue it from all moyſture or hurt thereof, and the broad boards which couer the foure ground poſts will not ſuffer any mice or other vermine to aſcend or come into the ſame.

Now for the manner of laying your corne into the ſtacke, you ſhall be ſure to turne that part of the ſheafe where the eares of the corne lye euer inward into the ſtacke, and the other which is the ſtraw end, you ſhall euer turne outward, and by that meanes you ſhall be aſſured that no flying fowle, as Pigeons, Crowes, and ſuch like, can do you any hurt or annoyance vpon the ſame: Laſtly, you ſhall vnderſtand, that you may make theſe ſtackes either round, ſquare, or long-wiſe, yet round is the ſafeſt, and if you doe make them long-wiſe, then you ſhall ſet them vpon ſixe ground poſts, or eight, according to the length and proportion you would haue it, and after your ſtacke is made, you ſhall then thatch it very well to keepe out the wet; alſo if when you do ſtacke your wheate, you doe top your ſtacke with Oates or other courſe graine, it will be ſo much the better, and the wheate will lye in greater ſafety, for no part of a ſtacke well made, eſpecially a round ſtacke, will ſo ſoone take wet or hurt, as the top thereof.

CHAP.

Chap. 17.

The diſeaſes and imperfections which happen to all manner of Graine.

ALbeit the manner of ſtacking and laying vp of Corne or Graine in the forme before ſhewed, may to euery one giue an aſſurance for the ſafe and profitable keeping thereof as long as it endureth therein, and abideth in the eare, yet becauſe diuers neceſſities may compell the Husbandman to thraſh out his Corne, as either for preſent vſe of Straw, Chaffe, Garbadge, or other commodities needfull vnto him (as the ſeaſon of the yeare ſhall fall out) I thinke it moſt neceſſary in this place to ſhew how all manner of Graine and Pulſe, of what nature ſoeuer may moſt ſafely and profitably be kept from all manner of annoiances, or corruptions whatſoeuer, being a worke of that vtility and goodneſſe, that not any belo g-ing to the Husbandman doth exceede it: Nor ſhall it be ſufficient to ſhew the offences and diſeaſes of Graine with their cures and healthfull preſeruations, whileſt it is in the Husbandmans poſſeſſion, but alſo whilſt it is in the earth, and at the mercy of cold, heate moiſtneſſe or drineſſe, and not onely ſubiect to the malignant influences of Starres and Planets, with the increaſing and decreaſing of the Moone and her operations: but alſo of diuers other hurtfull vermins; as birds, wormes, piſmires, dorres, ſnailes, moales, and other ſuch like: ſome whereof conſume and deuoure the graine ere it ſprout: others in ſprouting when the kernell is rotten and turned to ſweete ſubſtance, and others after

it is ſprouted by deuouring the firſt tender leaues before they haue ſtrength to appeare aboue the earth, being as it were but ſoft white threds not changed into the ſtrength of greene, becauſe the aire and Sunne hath not yet lookt vpon it.

Crowes, Pigeons, and Birds.

To begin then with the firſt enemies of corne or graine after it is throwne into the earth, there is none more noyſome then *Crowes* and *Chaughs* and other ſmaller birds, which flocking after the ſeeds-man, will in a manner deuoure and gather vp the graine as faſt as it is ſowne, for as according to the old ſaying, *That many hands make light worke*; ſo many of their mouthes (being creatures that euer fly in flocks together) and their much nimbleneſſe in deuouring, ſoone robbe the earth of her ſtore, and deprine the labouring Husbandman of very much profit, and the graine which theſe creatures doe moſt conſume, is all manner of white corne, as Wheare of all kinde, Rye and Oates, as alſo Hempe-ſeed, Lin-ſeed, Rape-ſeed and ſuch like: Neither are they onely offenſiue during this time of ſowing, but alſo after it is ſowne and couered, digging it with their ſtrong bills out of the earth, and ſo making the waſte greater and greater.

The cure.

The preuention or cure for this euill, is diuers, as the affections of people, and cuſtomes of Countreys doe inſtruct them, for ſome (eſpecially the *French men*) vſe when they ſow theſe graines or ſeeds, firſt to ſprinkle it with the dregs or lees of their bittereſt oyles, which when theſe deuouring fowles doe taſte, they refuſe to doe any further hurt: Others vſe to ſow Pigeons dung or Lime with their ſeed, which ſticking vnto the graine, the vnſauourineſſe thereof will make

the

the fowle caſt vp the graine againe, and leaue to doe further hurt: But foraſmuch as theſe medicines cannot euer be had, nor are euer wholeſome for euery ground, the onely beſt and ſafeſt meanes to preuent this euill, is to haue euer ſome young boy with bow and arrowes to follow the ſeeds-man and Harrows, making a great noiſe and acclamation and ſhooting his arrowes where he ſhall ſee theſe deuourers light, not ceaſing, but chaſing them from the land, and not ſuffering them at any time to light vpon the ſame; and theſe ſeruants are called Field-keepers or Crow-keepers, being of no leſſe vſe and profit (for the time) then any other ſeruant whatſoeuer, nor is it ſufficient to haue theſe Field-keepers for the bare time of ſeede onely whilſt the graine is in ſowing, but he ſhall alſo maintaine them till ſuch time as you ſee the graine appeare aboue the earth; which for Wheat or Rye, becauſe they are Winter-ſeeds, and ſo longer in ſprouting will aske a full moneth, for all other ſeeds which are ſowne in the Spring or Summer, a fortnight is full ſufficient; and this Field-keeper ſhall not faile to be in the field an houre before Sunne in the morning, and ſo continue till halfe an houre after Sun-ſet in the euening; for at the riſing and ſetting of the Sunne, is euer done the greateſt miſchiefe, for then are all creatures moſt eager and hungry: and though the indurance may promiſe much paine and trouble, yet queſtionleſſe the labour to any free ſpirit, is both eaſie and pleaſant.

Alſo if your Field-keeper in ſtead of his bow and arrowes doe vſe to ſhoot off a Musket, or Harquebuſh, the report thereof will appeare more terrible to theſe enemies of corne, and the profit thereof will be a great deale more: for a ſhot or two of pouder will Additions.

ſaue more corne then a weekes whooping and ſhouting; onely you muſt obſerue that your Field-keeper vſe no Bullet or Hagle-ſhot, for ſo he may turne ſcarring to killing. Now touching the deſtruction which theſe creatures make of corne after it is ſtackt vp; by tearing of the thatch and digging holes and pits therein, to preuent that, you ſhall cauſe the Thatcher to ſcatter vpon the Thatch great ſtore of aſhes of any kind or elſe Lime, that as the Pigeons or Crowes teareth vp the ſtraw, the Lime or aſhes may ſparkle into their eyes and nares which they will not endure: as for thoſe parts of the Stacke which cannot be thatcht, as the ſides and ends, vpon them you ſhall pricke diuers ſcar-crows, as dead crows, or dead Pigeons, or any other rags, or the ſhape of a man, made either of thumbe-rops of hay or ſtraw, or elſe ſome old caſt away apparell ſtopt with ſtraw, and ſo fixed on the ſtacke; alſo in this caſe you may vſe Clap mils, or ſuch like toyes which make a great noiſe: But to conclude the beſt preuention for theſe creatures (if you want abilitie to maintaine a Field-keeper) is to take long lines of packthread, and in them to knit diuers feathers of diuers colours, eſpecially white ones, & with little ſtakes ſo to faſten them ouer the Corne, that with euery breath of winde the feathers may dance and turne about, and the nearer that theſe Blinkes or ſcarres come to the ground (when the corne is new ſowne ſo much the better it is, leaſt the fowle finding a way to creepe vnder them, begin not to reſpect them; ſo that a hand or two from the ground is ſufficient, prouided that the feathers and ſcars haue liberty to play and moue.

But if it be to ſaue Corne in the ripening, that is to

ſay,

ſay, a little before it be reapt, when the eare begins to harden, or when it lieth in ſingle ſheafe vpon the land; for then fowle and birds doe as great miſchiefe, as at any other ſeaſon, it ſhall then be fit that you raiſe theſe lines or ſcarres vpon higher ſtakes, ſo as they may play as much aboue the eares of corne as before they did aboue the earth: and amongſt theſe ſcars thus made vpon lines in ſundry parts of the field, you ſhall vpon other ſtakes, place many other bigger ſcars, as dead crowes, pies, gleades, pigeons, or ſuch like; as alſo the proportions of man formerly ſhewed you, or any ragges of cloth being blacke, fowle, and vgly like bakers malkins, and then this there is no ſafer way for the defence of graine or corne from theſe birds, and ſuch like.

Of Piſmires

The next greate deuourers or conſumers of graine are Piſmires or Ants, which although it bee but a little creature, yet it is ſo labourſome, that the graine which they carrie away or deſtroy by eating, amounteth to a greate quantitie, and the miſchiefe which theſe little Vermines doe, is after the corne is couered in the ground, and before it ſprout, for they creeping in at the little chinckes of the earth, and finding the corne, either drag it out, or eate it; ſo that it cannot grow, and the graine which they moſt hurt, is all manner of white corne, eſpecially your fineſt and ſmalleſt Wheat, for the skin or hull is thinneſt, and the kirnell whiteſt and ſweeteſt: alſo to barley they doe much hurt, eſpecially, that which is fulleſt and beſt, and likewiſe to Rye, Hempe-ſeede, Lin-ſeede, and Rape-ſeede; as for Oats, becaule it is double hull'd, and alſo your great hole ſtraw wheat and Polard wheat which is thicke hulld, their hurt is not ſo much to them, and vnto pulſe

nothing at all, becauſe they are too heauy, too thicke skinned, and too bitter in taſte.

The Cure. The beſt cure or preuention for theſe Piſmires is to ſearch your Corne-fields well, eſpecially vnder hedges and old trees, and on the tops of Moale hills, and if you finde any beds or hills of Ants or Piſmires, preſently after Sun ſetting with hot ſcalding water to drowne the beds or hills, or with wet ſtraw and fire to make ſuch a ſmoake vpon them as may ſmother them to death, alſo if you meanure your Corne-lands with aſhes, lime or ſalt ſand, you ſhall be well aſſured it will neuer breed Piſmires.

Of Dores. Next vnto theſe, your Dores, or great black Clocks are vehement deſtroyers of all kinde of Corne both white Corne and Pulſe, whileſt it lieth dry in the earth, and before it ſprout, for after it beginneth to rot, they doe no more touch it, and theſe Dores deſtroy it in the ſame manner, as the Piſmires doe, by creeping in at the ſmall creuies of the earth, and finding the graine doe as long as it is dry feed thereon, and though they are no hoarders, or gatherers together of the graine, keeping it in heapes in dry places as the Piſmyres and other vermine doe, yet they are great feeders thereon and that continually, beſides they will euer chuſe out the fulleſt and beſt Corne, leaue the leaner, whereby they doe the Husbandman a double iniury, as firſt to deuoure, and then to deuoure but the beſt onely.

The Cure. The cure or preuention for theſe Dores, or blacke Clockes, is in Seed-time to make great ſmoakes in your corne-fields, which will preſently chaſe them from thence, for they are the greateſt enemies that may be to all manner of ſmoake: but if that be not ſufficient, then

then immediately before you sow your Corne, you shall very lightly sow your land with sharpe Lyme, and whensoeuer the Dore shall finde the smell or taste thereof, presently he will depart, or if he eate of the graine that toucheth the Lime, it is as present poyson vnto him, and there he dyeth.

After these, your field Rats and Mice are very vehement destroyers of all manner of graine or seeds before they sprout, especially all sorts of wheate, and all sorts of pulse, because for the most part those kinde of graines in many soyles are sowne vnder furrow, and not harrowed, so that the furrowes at first lying a little hollow, these vermines, getting in betweene the earth and them, will not onely deuoure and eate a great part of the graine, but also gather together great heapes thereof into their nests, as is often seene when at any time their nests are found, some hauing more, some lesse, according to their labours: And albeit in other soyles where the graine is sowne aboue furrow, and so harrowed in and laid much more close and safe, they cannot doe so much hurt as in the former, yet euen in these they will with their feet digge out the corne in great abundance, and though in lesse measure, yet doe hurt that is vnsufferable; so that to conclude, neither Rye, Barley, Oates, nor any other smaller and more tender seeds are free from their annoyance and destruction. Of field-Rats and Mice.

Now the cure and preuention for these Field-Rats Mice are diuers, according to the opinions of diuers authors, and diuers of our best experienc't Husbandmen: for some vse in the Dog-dayes, or Canicular dayes when the fields are commonly bare, to search out the holes and nests of these Rats and Mice, which The Cure.

are easily knowne, being little round holes in the earth made so round and artificially as if they were made with an Auger, no bigger then the body of the Creature that was to lye in it: and into these holes they vse to put a few Hemlock Seeds, of which when the beast tasts it is present death vnto them: Others vse to sprinkle vpon the land, *Hellebore* or neesing pouder mixt with Barley meale, of which the Mice and Rats will greedily feed, and it is deadly bane and present death vnto them. Lastly, (and which is the best medicine) if you take a good quantity of ordinary greene glasse beaten also to pouder, and as much Copporas or vitrial beaten also to pouder and mixe them with course honey, till it come to a paste, and then lay it in the holes and most suspicious places, and it will neither leaue Rat nor Mouse about all your fields, but sodainely destroy them.

Of wormes. The next great destroyers of Corne and Graine, are wormes, and they destroy it in the sprouting, then when the ground hath rotted it, and the white or milkie substance breaking open the vpper huske, shooteth forth in little white threds at both ends, vpon which whilest it is so moist and tender the worme feedeth extreamly, and so deuouring vp the substance or sperme, is the cause the Corne cannot grow or get out of the ground, and these wormes being as it were the maine citizens within the earth are so innumerable that the losse which is bred by them is infinite.

The Cure. Now the cure or preuention for these wormes is diuersly taken: for some Husbandmen vse, but onely to strike into the plow rest, and vnder the lowest edge of the shelbord certaine crooked spikes of iron of great nayles halfe driuen in, and turned backe againe, with which

which as the plow runnes tearing in the ground, and turnes vp the furrow, thoſe pieces of iron kill and teare in pieces all ſuch wormes as are either within or vnder the furrowes that the plow caſts vp, and this is ſure a very good husbandly practice, but not ſufficient for the deſtroying of ſuch a ſecret hurtfull vermine which is ſo innumerable, and lies ſo much concealed; therefore more curious husbands vſe beſides this helpe of the plow, to take Oxe dung and mixe it with ſtraw, and then to burne it vp in the land, making a great ſmoake ouer all the land, immediately before you plow it for ſeed, and it is thought that this will kill all the wormes which lie ſo high *in* the earth, as to hurt the Corne; Others vſe before they make either the mixture or the ſmoake to wet the ſtraw in ſtrong Lye, and then adding it to the dung, the ſmoake will be ſo much the ſtronger, and the wormes killed the ſooner, or if you ſprinkle ſtrong lye vpon your ſeed before you ſow it, there is not any worme that will touch the graine after: Alſo, if you take hempe and boile it in water, and with that water ſprinkle your ſeed before you ſow it, not any worme will come neere to touch it.

Yet it is to be obſerued in this rule of wetting your ſeed-Corne, that by no meanes you muſt wet your ſeed-Rye, for it is a graine ſo warme and tender that it will neither endure cold, wet, nor ſtiffe ground, inſomuch that the plowman hath a Prouerbe, that Rye will drownd in the hopper, that is to ſay, it muſt neither be ſowne on wet ground, nor in a wet day, ſince preſent ſhewers are apt to deſtroy it: laſtly, it is thought that oft plowing of your ground in the wane of the Moone is a very good meanes to deſtroy wormes. Touching that practice which many vſe, to gather the worms from

Of Rye not to be wet.

from their lands at Sun-rise, in bright dewie mornings, and Sun-set when the wormes couple aboue the earth, I hold it more fit for small gardens, then large Corne-fields.

Of Snailes. The next great destroyers of Corne are Snailes, and they destroy it after it is sprouted, feeding vpon the tender white threds and fions which start from the seed and would rise aboue the earth, being the stemme or stalke on which the eares should grow (were it not deuoured and eaten vp by these Snailes, and such like vermine) as soone as it begins to peepe vp, or as it were but to open the earth, whereby it is driuen back and forced to die in the earth: for these creatures sucking vpon the tender sweetnesse, depriue it both of life and nourishment.

The cure. The cure and preuention for this euill, is to take the soot of a Chimney, and after your Corne hath beene sowne a weeke or ten daies, or within two or three daies after the first shower of raine which shall fall after the Corne is sowne; you shall sow this soot of the Chimney thinly ouer the land, and not a Snaile will endure to come thereon: Others vse (especially in *France* and those more fertile Countries) to take common Oyle lees, and after the Corne hath beene sowne and is ready to appeare aboue ground, to sprinkle it all ouer the Lands, by which meanes no Snaile or such like creature will endure to come neere the same.

Of Grashoppers. The next great destroyer of Corne is accounted the Grashopper, and he also destroyeth it after it is sprouted and appeareth aboue the ground, as the Snaile doth, but somewhat more greedily, for he not onely feedeth on the tender white strings, but vpon the first greene leaues that appeare also; by which meanes the Corne is not able

able to ſpring or bring forth a ſtemme or ſtalke to beare the eare vpon; or if it do put forth any, yet it is ſo ſmall, weake and wretched, that the eare growing on the ſame, is withered and leare and the graine dry and blaſted, and no better then Chaffe; nor is there any Corne that ſcapeth the deſtruction of the Graſhopper, for he generally feedeth on all: firſt, on Wheat & Rie, becauſe they are the earlieſt, then on the Barlie & Oates, and laſtly on Pulſe, vpon whoſe leafe and boſſome he feedeth whileſt the firſt is ſweet & pleaſant, or the other greene.

Now the cure or preuention for theſe Creatures, is according to the opinion of ſome Husbandmen, to take Wormewood and boyle it well in water, till the ſtrength of the Wormewood be gone thereinto, and then with that water in the moneth of *May* to ſprinkle all your Corne ouer when the Sun is riſing or ſetting: and not any Graſhopper will come neere or annoy the ſame. Others vſe in ſtead of Wormwood to boile Centuary, and to vſe the water thereof in the ſame manner as a foreſaid, and finde an equall and like profit in the ſame, but is moſt certaine that any bitter decoction whatſoeuer, vſed and applied as aforeſaid, will not leaue one Graſhopper about your Fields, for any bitterneſſe is ſuch an enemy vnto them, that they cannot liue where they feele any taſte thereof. The cure.

The laſt offence of liuing Creatures belonging to Corne or Graine, are Moales, which not onely feed vpon it after it is ſprouted and ſpindled by eating vp the roots thereof, and conſequently by killing the whole Corne: but alſo by their digging and vndermining of the earth, doe roote vp the Corne and deſtroy it in moſt wonderfull manner, for where they make their haunts, or are ſuffered to digge, there they will deſtroy Of Moales.

almoſt

almoſt halfe an Acre in a day, neither make they choice either of Ground or Graine, for all grounds and Graines are alike, if the ground be not to wet, or ſubiect to inundation or ouerflowes (as for the moſt part corne grounds are not) for aboue all things Moales cannot endure wet ground or earth of too moiſt quality.

The Cure.

Now the beſt cure or preuention againſt theſe creatures, is to find out their trenches and paſſages which are moſt plaine and eaſie to be knowne by the turning vp of the new earth, and digging croſſe holes in the ſame, to watch either the going forth, or the cumming backe of the Moale, and when you ſee her caſt to ſtrike her with an iron forke made of many graines, as eight or ſixe at the leaſt, and ſo to kill and deſtroy them; which ſtill is ſo generally knowne amongſt Husbandmen, that it is become a trade and occupation amongſt them, ſo that it needs no further deſcription, and the rather in as much as for three or foure pence a ſcore, you may haue any ground clenſed of Moales whatſoeuer.

Now there be ſome others which haue not this art of killing or catching of Moales, which onely doe take brimſtone and wet ſtincking ſtraw, or anie thing elſe that will make a ſtincking ſmoake, and putting fire thereto ſmoake all the places of their haunts, and by that meanes driue them all cleane away from the corne-lands: many other practices they haue, but none ſo good, certaine, and probable as theſe already declared.

Offences from the influence of the heauens.

Thus far I haue ſpoken of thoſe offences which proceede from liuing creatures, I will now intreate of theſe which come and grow from the Influence of the heauens, being malignant vapours which ſtriking into the earth, doe alter the ſweete and pleaſant nouriſhment thereof, and change it into bitterneſſe and rottennеſſe, where

by the Corne is either ſlaine outright, withered and made leane and vnkindly, or elſe the kernell turned to a filthy blackneſſe, being bitter dry, and duſty, like vnto ſmoake, which the Husbandman calleth ſmuttineſſe or mildewing commeth another way, as namely by ouer rankneſſe, or too much fatneſſe of the earth, and this happeneth moſt commonly onely to Wheat, for if blackneſſe happen to any other Graine, it commeth of blaſtings or other malice of the Starres, for rankneſſe of the ground in Barley, Rie, or Oates, onely makes them lie flat to the ground, the ſtalke not being able to ſupport the multiplicity of the eares, and ſo by that meanes the graine wanting his true nouriſhment, grows light, withered, and of no validity; now that this is moſt eaſie to be found out, the rankneſſe of the growing Corne, riſing as it were in cloſe bundles together, and the deepe blackneſſe of the greene blades will with ſmall trauell ſhew you. *Of ſmuttineſſe and mildew.*

This to cure and preuent, it ſhall be good before you ſow your Graine, to ſow your land lightly ouer with chalke, for that will abate his ouer rankneſſe. *The Cure.*

There be other malignant qualities which proceed from the influences of the Heauens, or rather from the qualities of the Planets or Elements which doe many dangerous hurts vnto Corne, as namely the Haile, the Lightning, the Thunder and the Planet-ſtroke or Blaſting, for all which the ancient Husbandmen haue ſuggeſted ſeuerall Cures, as namely for the Haile, to plant the white Vine, or ſticke the branches thereof in the Corne-field. For the Lightning, to cloſe a hedge-Teoade in an earthen pot, and burying her in the Corne-field, or to hang vp the feathers of an Eagle, or a Seale skinne, or to plant Lawrell therein: For the Thunder *Additions.*

Thunder, to ring Bels, to ſhoot off great Ordnance, or to burne ſtinking weeds in the Corne fie'd: And for Blaſting, to take the farre horne of an Oxe, and mixing it with dung, to burne it in the corne-field, or to take the branches of the Bay tree, and to plant them in the corne-field: But in as much as all theſe, and many other the like, ſmell rather of coniuration, charme, or exorciſme, then of any probabilitie of truth; I will neither here ſtand much vpon them, nor perſwade any man to giue further credit vnto them, then as to the vapours of mens braines, which produce much many times out of meere imagination; and ſo I will proceede vnto thoſe things which are of farre greater likelihood.

Of frosts. The next euill which happeneth vnto corne or graine, is that which commeth by froſts and ſharpe nipping colds, which ſtaruing the root, and binding vp all nouriſhment, maketh the corne dry, wither, and neuer proſper; and then the violence of the froſts, here is nothing more bitter to plants and ſeeds, for euer Raſor-like it cutteth the veines and ſinewes in pieces, and as ſharpe needles pricketh the heart of euery growing thing, for as the fire which is moſt hot, when it rageth, burneth and conſumeth all things, ſo the froſt which is moſt cold when it continueth, ſtarueth and choaketh or ſtifleth whatſoeuer it imbraceth.

The cure. Now the cure or preuention for thoſe euils which doe happen to Graine by theſe greate Froſts, is as ſome Husbandmen ſuppoſe, to couer the land ouer when it is ſowne, with aſhes, others ſpread ſtraw or rotten litter vpon their corne, and not any of them but is ſufficient to preuent the worſt iniury that the froſt can doe.

The

The moſt malignant qualitie which offendeth graine, is myſt and fog, which being naughty vapours drawne from the infected parts of the earth, and falling vpon the corne, doe not onely make the graine leprous, but alſo infecting the better earth alter the kindly nouriſhment thereof, and as it were diſtilling corruption in the veines, makes all that depend thereupon moſt leprous and vnwholeſome, & thereby altereth the quality, quite turning ſweetneſſe into bitterneſſe, fulneſſe into emptineſſe, and goodneſſe into badneſſe, to the great loſſe of the Husbandman, and the much diſreputation of the ground. Mists and fogges.

Now the cure and preuention of this euill, according to the opinions of all the beſt Husbandmen, is to take weeds greene, the twigs of brambles, and other bruſh wood, wet ſtraw or any ſuch like ſtuffe, and binding them in great bundles, to put fire thereto, making a great and violent ſmoake, and then taking the aduantage of the wind, to walke vp and downe the field and ſmoake it, which is thought a certaine remedy to take away thoſe inconueniences which happen by violence and poyſon of theſe myſts and fogs. The cure.

Now to conclude the diſeaſes and infirmities which happen to Corne whilſt it is in the field, there is not any formerly ſpoken of more dangerous or of vilder qualitie then the reaping, mowing, or gathering in of Corne, wet or too greene, and vnhardned, for ſuch moiſture when the corne is either ſheaffed vp cloſe together, or ſtackt or mowed vp, forthwith gathereth heat, and either ſetteth the Corne on fire, or elſe the moiſture being of leſſe quantity, and not apt to flame, yet it corrupteth the graine and ſtraw, and breedeth a ſtinking mouldineſſe or rottenneſſe aboute it, ſo that the Corne reapt wet.

the graine either becomes dung and durt, or at leaſt ſo ſtinking and vnſauory that it is good for no vſe or purpoſe, as is daily ſeene where careleſſe husbands gather in their graine without reſpect or gouerment, making the old Prouerbe good, that haſt euer brings waſt.

The cure. The cure and preuention of this euill, is the well husbanding and managing of the harueſt, as firſt with a carefull and well iudging eye to looke vpon your Corn, and to know by the hanging downward of the eare (looking as it were backe to the ground) and by the hardneſſe of the Graine, whether it be ripe or no; then to looke into the cleanneſſe of the Corne, as whether it be full of greenes, as graſſe, weeds, and ſuch like: or cleane of it ſelfe without any mixture: if you finde there be many weeds mixt with it, then you may reape it ſo much the ſooner, though the kernel be not ſo well hardned as you would wiſh, and aboue all things haue a care neuer to ſheare Corne in the raine or wet, no not ſo much as with the mornings or euenings dew vpon it, but euen in the heate and brightneſſe of the day. Then hauing reapt your Corne ſo full of graſſe and weedes, you ſhall by no meanes ſheafe it, but ſpreading it thinne in the Sunne, let the graſſe wither all that day; which when you perceiue to change colour and grow dry, then bind it vp in ſheafes, and let it lie ſingle a day, that the winde and Sunne may get into it, and dry the greenes more ſufficiently; then lay it in ſtouckes of ſixe or eight ſheafes apeece, and in thoſe ſtouckes, and turne the eares ſo inward that the other bigger ends may defend them from all raine, wet or dew that may fall vpon them; then a day or two after, lay them in ſtouckes of twenty or of foure and twenty ſheafes apeece, and in thoſe ſtouckes let them take a ſweat, then breake them open

open in a bright Sunne shine day, and letting the aire passe thorow them to dry them, forthwith leade the graine home, and house it or stacke it in such sort as was shewed in the former Chapter, and be sure the graine thus ordered and dried can neuer take hurt: but if the season of the yeare fall out so extraordinary euill, and full of wet, that by no meanes you can get your Corne dry home (which although it be seldome seene, yet it is possible to be seene) in this case you must bring it home as well as you can, and hauing your Kilne well ordered and bedded, you shall lay as many sheaues thereon, as it can containe, and turning and tossing them ouer a very gentle fire, by slow degrees dry them very perfectly as neere as you can, with no greater a heate then that which the Sunne giueth, and then mowe and stacke them vp at your pleasure, for the ayre will sweeten them againe, and take away all smell of smoake or other annoyance: only obserue, not to stacke them vp whilst the fire or heate is in them, but when they are cold, and so they will be as sweet as may be.

Now it is not amisse that I speake here a word or two of washt Corne, or the washing of Corne; True it is (as before I haue written) that all sorts of Wheat whatsoeuer are subiect, either by the rankenesse of the ground, blasting, or else mildewing, to a kind of filthy sooty blackenesse, as is already shewed; and this sooty Corne is taken two wayes, generally and particularly: generally, if the whole land be stricken, and no corne saued, but all spoyled, which is called mildewed: or particularly, where but some certaine eares are strucke, or some certaine part of the graine, as when it is black at both ends, yet full and sound in the middest, and Of Corne washt.

this is called ſmutcht Corne, being disfigured in part, and not in all. This ſmutcht Corne which is ſtricken here and there, if the blaſted eares be not culled out from the other, (which to doe is an husbandry exceeding good and very worthy) when it commeth vnder the flayle, the duſt of thoſe blacke blaſted eares will ſo foule all the reſt of the corne, that it wil looke black and ill fauoured, and ſo become vnſeruiceable and vnmarketable, for the blaſted corne is both bitter and vnwholeſome: In this caſe you muſt of force waſh this corne, and you muſt doe it in two or three waters, till you ſee all the blackneſſe quite gone; which done, then draine away your water cleane, and laying the corne on faire window cloathes, or couerlids, lay it in the heate of the Sunne, and ſo dry it againe till it be ſo hard that it will grind; But if the time of the yeare will not ſerue for the Suns drying it, then you ſhall dry it on a kilne with a very ſoft and gentle fire, and then coole it in the ayre to recouer the ſweetneſſe againe, and then the corne is as ſeruiceable as any other, onely for ſeed it will by no meanes ſerue; both by meanes of the blaſting, which makes the kernell imperfect at both ends, where it ſhould ſprout, as alſo the too much drying thereof, by which it is ſo much hardened that the ground hath not ſtrength to reſolue it, therefore it is the office of euery husbandman when he chuſeth his ſeed corne, to eſchew by all meanes this waſht corne as a graine that is loſt in the earth, and will by no meanes grow.

To know waſht corne.

Therefore that you may know waſht corne from all other corne, and ſo not to be cozened by any deceit in the ill husbandman, you ſhall take it vp into your hand, and if the corne looke bright, cleere, and ſhining, being

being all of one entire colour without change or difference, then be ſure the corne is vnwaſht and perfit.

But if you finde it looke whiter at the ends then in any other part of the corne, and that the whiteneſſe is blacke and not ſhifting, ſo that there is a changeable colour in the corne, then be aſſured that the corne is waſht and then by no meanes apt for ſeed or increaſe.

Againe, put three or foure graines into your mouth and chaw them, and if then the taſte be ſweet and pleaſant, and grind mellow and gently betweene your teeth; then is the corne not waſht, but if it haue a bitteriſh, or flaſhy raw taſte, and grind hard betweene your teeth, or with much roughneſſe, then hath the corne beene waſht and dryed againe, and is not good for ſeed: alſo when Corne is more then ordinarily moiſt, or more then ordinarily dry, both are very ill ſignes, and ſhew either imperfect Corne, or imperfect keeping, for the beſt and good Corne indeed euer holdeth an indifferent temperature betwixt drineſſe and moiſture.

Chap. 18.

How to keepe all manner of Graine, either thraſht or vnthraſht with leaſt loſſe the longeſt time, and how to preſerue it from all infirmities and vermine in the houſe or garner.

TO proceed to the keeping and preſeruing of Corne and Graine, it is to be vnderſtood that it is to be done two ſeuerall wayes; that is to ſay, in the eare and out of the eare, in the ſtacke when it is ioyned with the Straw and Chaffe, or in the Garner when it is clenſed and dreſſed. Keeping of corne two-fold.

Keeping Corne in the eare or in the chaffe.

Touching the keeping of Corne in the Eare or in the Stacke, there is no better or safer way then that already described in the sixteenth Chapter, being free from all offences whatsoeuer that can come to hurt it.

Now there be others that take off the eares of their Corne, and then put them into great Chests or Hutches of wood, (such are very frequent and much in vse in *Ireland* and other Countries where waste rageth) and so keepe it sweete and good many yeares. Others vse to beate it out of the Eare, but not seperate it from the Chaffe, and then laying a leare of the Strawe more then a foote thicke, to lay a good thicke leare of the thickest Corne, then another leare of Strawe, and so a leare of thresht Corne, and thus lay leare vpon leare, till you haue made vp your Stack, in such proportion as you shall thinke conuenient; and and this will keepe all kind of Corne, or Graine, or other seeds, sound, sweete, and fit for any purpose, at least a dozen yeare, or more, as some haue supposed, without either too much drying, withering, moistening or molding; and sure this is a very excellent way for the storing vp of much Corne in a very little roome, and may as well be done with corne as with straw: onely it is not to be done in Barne nor House, because Mice, Rats and other kinde of Vermine will worke much destruction thereupon, but on a Stacke or Houell made and proportioned in such forme as was shewed before in the sixteenth Chapter, and so it will stand safe without all annoyance, as long as it shall please the owner to keepe it; sure I am it will last thus fully twelue yeares, yet some Authors affirme it will last fifty yeare, but that is a space of yeares beyond my tryall,

Touching

Touching the keeping of Corne after it is thraſht and dreſt, it is diuers wayes to be done, as by ſtoage or place of leare, as garners, hutches, and ſuch like: by labour and induſtry, as with the ſhouell: or elſe by deuice or medicine. Keeping of corne out of the Eare or dreſt.

For Garners, they be made diuers wayes, according to the nature of the Country and cuſtome of the people. Of Garners.

Some are made with clay and lome troden with haire, ſtraw chopt, and ſuch like: but theſe are the worſt and doe ſooneſt corrupt Corne, for although they are warme, which is a great preſeruation to Corne, yet they yeeld duſt, and from that duſt is bred fleas, mytes, weauels and other vermine which ſpoile corne, and make it eaſily rot.

Others are made of ſtone and lyme, but they are ſubiect againſt wet weather, to yeeld forth a moiſt dew which corrupteth and rotteth corne.

Others are made of Bricke and Lyme, and they are very good againſt the weauell and other ſmall vermine, but the lyme is ſharpe and ſo conſequently very vnwholeſome for all manner of Graine. The beſt Garner then that can be made to keepe all manner of graine in, is made of plaſter, burnt and brought into morter, and ſo raiſing it vp with the helpe of ſmall ſtones hidden and placed in the middeſt of the wall, to make both the inſide, and the outſide of the Garner of ſmooth plaſter, no ſtone being ſeene but hidden at leaſt two fingers thicke on each ſide, and all the bottome alſo muſt bee made of plaſter; for no floore keepeth corne ſo well, of what kinde ſo euer it be, and theſe Garners would be placed as neere as you can to the backes or ſides of chimneys, or as neere the ayre of the fire as you can conueniently, for as there is nothing more cold

then plaſter, yet it is euer ſo dry and free from moiſture, that with no change of the ayre or weather it relenteth, but keepeth the corne euer in one ſtate of goodneſſe, whilſt the warme ſtanding thereof is ſuch a comfort in the Winter, and the naturall coolneſſe of the thing ſo ſoueraigne in Summer, that the graine euer abideth in one ſtate without alteration.

Of hutches. Now for hutches or great cheſts, byngs, dry-fats, and ſuch like, they are made of old, dry and well ſeaſoned Oake-boords, plained ſmooth, and cloſe ioyned and glewed together, with couers and lids made alſo very cloſe, whereby little or no ayre can come in: Some of theſe great byngs or hutches made of dry boords are made open and without couers, but they are not ſo good, for the ayre cooling the vpper part of the corne, and the middle part ſweating, breedeth corruption, or muſtineſſe, which hurteth and ſpoileth the corne: beſides, they are ſomewhat too warme, and thereby make any greene corne apt to corrupt and ſmell.

Touching the vſe of Garners and Hutches, they are principally to keepe Malt after it is dryed, or Barley which is for the vſe of bread or meale: and here is to be noted that the beſt manner of keeping malt, is to keepe it in the come, that is to ſay, in the duſt and other filth which commeth with it from the kilne, as thus, when firſt you lay your malt on the kilne to be dryed, you know there is at one end a certaine ſprout or ſmall threds which growes from the corne, and it is called the come, which by the rubbing and drying of the malt falls away, and leaues the corne cleane and ſnug of it ſelfe, and when you trim and dreſſe vp your malt for the mill, is winnowed and cleanſed away: this you ſhall preſerue and put all together into your Garner

or

or Hutch, which will ſo mellow and ripen your malt, that in the ſpending thereof a pecke will goe further then a pecke and a halfe kept of a contrary faſhion, and although ſome are perſwaded that this come or malt-duſt, is a greate breeder of the worme or weuell, by reaſon of the much heare thereof, being indeed of the pureſt of the heart of the corne; yet it is not ſo vnleſſe ſome dankeneſſe or moyſture doe get to the corne, and then it breeds weuells in infinite abundance, and therefore by all meanes be ſure that your garners and hutches doe ſtand exceeding dry, and then there is no feare of the loſſe of corne, nor ſhall you need to dreſſe or winnow your malt but as you ſpend it.

Laſtly, here is to be noted, that although I here ioyne garners, hutches, cheſts and byngs together, yet I make them not all of equall goodneſſe: for the plaſter garner is abſolutely the beſt of all, the cloſe hutch or cheſt next, and the open byng laſt; yet any or all ſufficient enough to keepe malt, barley, or ſmall ſeeds, diuers yeares without imperfection.

It is written by ſome of the anicenteſt Authors that Wheat hath beene kept in theſe cloſe hutches or cheſts ſweet, the ſpace of fifty yeares, yet I hold the rule ſomewhat doubtfull, both becauſe Wheat of it ſelfe lying ſo cloſe packt together, is apt to heat and ſweat, and that heat commonly turneth to faughtineſſe, and the ſweat to corruption; but that it may thus be preſerued from wormes, weauels, mytes and other vermine, breeding in corne, it is doubtleſſe and infallible.

Now for the preſeruation of Wheat, which is the moſt principall graine, of greateſt vſe, and greateſt price, and therewithall moſt tender, and apteſt to take hurt: To preſerue Wheate.

hurt: the experiments are diuerſe as mens fancies and practiſes haue found out, for ſome Husbandmen hold opinion, eſpecially the *French* and *Spaniſh*, that if you take the lees of common oyle (ſo it be ſweete) and ſprinkle it vpon your wheate as it lies, either in the garner, or vpon the floore, that it will preſerue it from all corruption and annoyance whatſoeuer, nor doth it ſaue wheate onely, but all other manner of graine whatſoeuer; nor doth preſerue corne alone from miſchiefe, but if corne by caſualty be tainted or hurt, it doth recouer it againe, and brings it to the firſt ſweetneſſe; and if either wormes or weauels be bred in it, the oyle preſently kils them, and makes the corne from that miſchiefe: as for ſmaller ſeedes, as hempe, line and rape, this oyle doth not onely keepe them long and ſound, but alſo feedes and nouriſhes them, and makes them better, either for the ground; or for vſe either in the mill or in medicine. There be others that vſe to take chalke, and beate it to powder, and then ſcatter it amongſt their wheate, when they put it into the garner, and haue found that thereby their graine hath bene wonderfully preſerued from all imperfection, and ſurely there is great reaſon for the ſame, becauſe the drineſſe of the chalke drinketh vp the moyſture which ſweateth from the graine, and is the firſt breeder of all putrifaction: alſo it cooleth and aſſwageth the immoderate heate which is ingendred in the corne, by reaſon of the packe and cloſe lying together.

Againe, there be others which vſe to lay great ſtore of worme wood amongſt their wheate, which likewiſe preſerueth it from all annoyances, eſpecially from wormes and weauels, as alſo from Mice, Rats, and ſuch deuouring vermine; neither will the Corne cor-

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fuperfluous growth thereby, as long as the worme-wood remaines amongſt it: In *Italy* the carefull Husbands vſe to take a certaine dry earth or clay, called earth of *Olynthus* or *Cernithus*, and this earth they beate amongſt their wheate, and then put it into the garner or hutch, and it will keepe it ſound and ſweete diuerſe yeares together; then when they haue occaſion to vſe it, with ſmall reeing ſiues to dreſſe it from the Corne, and ſo preſerue the duſt, which will laſt and ſerue you many yeares together, euen almoſt an age as ſome haue reported, and is at this day to be ſeene in many parts of *Italy* and other places.

Againe, I haue for mine owne part ſeene in the Ilands of the *Azores*, certaine very great and large caues or pits made vnder the earth, of the faſhion of a *Spaniſh* earthen Iarre, that is to ſay, great and ſpacious in the midſt, and narrow both at the top and bottome, like a braſſe pot or great glaſſe viall, and made as ſmooth within as may be, and in theſe caues or pits, they firſt lay chaffe, and then their thraſht wheate filling it vp full to the top, or within a handfull thereof, which they fill againe with chaffe, and then cloſing the top with a broad ſtone, they couer it ouer with earth ſo cloſe and vnperceiueable, that you may walke or trauell ouer it without any ſuſpition; and for mine owne part, I haue my ſelfe digged vp many of theſe pits, and found great ſtore of wheate, both in the high wayes, and other moſt inſuſpicious places, and ſurely it is thought, and experience in thoſe places mak s it good, that in theſe caues or pits you may keepe wheat as long if you pleaſe as *Pliny* ſpeaketh of, which is an hundred or an hundred and twenty yeares without hurt or putrifaction either of heate, moyſture, wormes, weauels

or

or any other vermine whatſoeuer which conſumeth or deuoureth Corne; yet how I may recommend this experiment to our nation I am vncertaine, becauſe the much moiſture of our climate, and the cold rawneſſe thereof promiſeth a contrary effect; for the great enemies vnto graine, are violent cold and moiſture, and with vs it is very difficult to make any cauerns vnder the earth but they muſt be ſubiect vnto both: therefore onely to thoſe which liue in hot ſandy Countries high and free from ſprings or waters, or in dry and rockie grounds, where theſe mynes or hollow places may be hewed out, as in a maine and firme quarry, I recommend the tryall of this practice, with this aſſurance, that where the ground is fit for this purpoſe, as in any of your ſand grounds or grauelly earths, as in *Norfolke*, *Middleſexe*, *Kent*, and many other ſandy climats; or in rockie ſituations as in *Nottingham*, *Bathe*, *Briſtoll*, and ſuch like, you may keepe your wheat, good, ſound, firme and free from all annoyances, euen as long as you ſhall pleaſe to keepe it, both without putrifaction in it ſelfe, or waſte made by other deuouring worms and vermine: but if in a more moiſt place, as in a clay or other mixt earth which euer is vomiting wet and dewiſh humours, you are forced to approue this experiment: then you muſt neceſſarily lime all your caue or hollow myne within, at leaſt halfe a foote thicke with tyle ſhred and plaſter laid wall-like together, and then the plaſter dawbd at leaſt three fingers thicke aboue all, and ſo you may keepe your Corne as ſafe and as ſound as any hot ſoile whatſoeuer, but without it your Corne will not endure a weeke without rottenneſſe, faughtineſſe, mouldineſſe, and ſtinking.

To conclude, hauing ſhewed you all the moſt approued

ued & beſt experiments for the keepeing & preſeruing of wheat, there is none better, or ſo good as this poore ſilly plaine one which I will here deliuer: And that is, firſt (as neare as you can) reape your wheat at the change of the Moone, for wheat which is ſo reaped is ſeldome or neuer ſubiect to loſſe or putrifaction (being gotten dry and in husbandly manner ordered and handled) becauſe that celeſtiall body hath ſuch a power and influence in the growth of Corne and ſeeds, that as ſhe groweth ſo they grow, and as ſhe waneth, ſo they abate and wither.

And truly for mine owne part, in my poore husbandry, I haue made this obſeruation, that I haue reaped corne at the beginning of the wane (to mine eye and iudgement) great, full, and bold (as the Plow-man calls it) and within few daies after, when it came to thraſhing, I haue found it moſt poore, hungry, and ſmall corne: nor could I giue or find any other reaſon for the ſame, but that it was reaped in an ill and moſt vnſeaſonable time: for on the contrary part, I haue euer found that corne reaped vpon the Change, being ripe, full, and euery way fit for the barne (& the weather faire & dry aboue head) it hath neuer altered, but kept his firſt and and perfit goodneſſe, ſo that I cannot chuſe but in this caſe thinke the obſeruation of the Moone to be a thing of great effect and validitie, appointed by God as a ſecond meanes for our help and profit: when therefore your corne is thus ſeaſonably and well got, you ſhall thraſh it, winow it, and dreſſe it ſo cleane as you can, then carry it vp into your chambers, or lofts appoynted for that purpoſe, and whoſe floores by all meanes I would wiſh to be caſt of the beſt plaſter; for boords are too hot, and clay is too apt to breed vermine: One this plaſter floore you ſhall ſpread your wheat not aboue

aboue a foot thicke at the vttermoſt, and ſo let it lie: obſeruing once in foure or in fiue dayes at the moſt, with a large woodden ſhouell, to turne the Wheat quite ouer and ouer. And thus doing you ſhall be ſure to keepe it as ſweet, ſound and good, as when it firſt came into the barne: for neither can the heate, ſweat nor coldneſſe offend it, the firſt being cooled and tempered by the opening and diſperſing; the ſecond dryed vp by the ayre which hath free recourſe into it, and the laſt comforted by the labour and toſſing of the ſhouell, caſting it vp and downe from one place to another, and though ſome curious Husbands may obiect that this manner of keeping corne dryeth it ſomewhat too much, and thereby diſableth it for ſome particular purpoſes, as for ſeed, and ſuch like; yet in that they are much miſtaken; for this ſtirring and mouing of Graine, is not a drying of it, but rather a great comforter and ſtrengthner of it, diſperſing backe into the Corne, thoſe wholeſome vapours which ſhould doe it good (by way of communication and fellowſhip with the Graine) and expelling thoſe ill humours which ſweating out of it would otherwiſe confound and hurt it, ſo that in concluſion for the true and long keeping of wheat ſweet, ſound, and perfit, without loſſe or corruption, there is no way more ſafe or eaſie, then this laſt expreſſed, being of all other the beſt, although in ſhew it appeare ſleight and triuiall, as for the moſt part things of greateſt moment in this nature doe; but to the iudicious Husbandman I referre it, whoſe aime is at the worth and ſubſtance, not at the words and curious gloſſe, ſet forth in ſtrange ingrediens.

To preſerue Rye.

Touching the keeping of Rie or Maſſline, or as ſome call it munck-corne or blend-corne, being part Rie, and part

part Wheat mixed together, that which preſerueth Wheat will alſo preſerue it, for they are Graine of like nature, onely the Rye is ſomewhat hotter and dryer, and therefore will endure ſomewhat more moiſture; yet to ſpeake particularly touching the preſeruation of Rye, there is nothing better then the Plaſter-floore, and oft turning; the cloſe Hutch is alſo exceeding good, ſo is the Pipe or Dryfatte, but being once opened, and the ayre entring into the Corne, except it be ſoone ſpent, it will ſoone purrifie, for though in the cloſe keeping it laſt long, yet when it comes to the ayre it quickely receiues taint. Laſtly, for the profit in keeping of Rye, indeed there is nothing better then to ply it and tread it hard into hard veſſels or barrels, wherein ſalt hath been much lodged, or other brine or ſalt matter: prouided alwaies that the veſſels be ſweet and vntainted, no waies ſubiect to faughtineſſe, or other vnſauourie ſmels, from which there is no preſeruation.

Concerning the preſeruation and keeping of Beanes, which are indeed a more groſſe and fatter graine then any heretofore written of, and out of the fulneſſe of their ſubſtance, more ſubiect to moiſture and thoſe dankiſh humours which corrupt Corne: the carefull husbandman obſerueth two rules; firſt, not to thraſh any Beanes or Pulſe, more then for neceſſary vſe (as for the Stable or Mill) before it be midde *March*, at which time the Graine hauing taken a kindly ſweat in the Mow, Stacke, or Houell, is become ſo dry, firme, and ſolid, that no floore, wall, or other place of leure, can make it relent or giue againe, (except great abuſe and too moyſt keeping) for it is to be vnderſtood, that this ſort of Pulſe or Graine is of it ſelfe ſo exceeding moiſt and apt to ſweat in the Mow, that all Husband- To preſerue Beanes.

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men endeauor by no meanes to houſe it, or lay it within doores, but ſeeke to make it vp in ſtackes and houels without doores; not ſo much that houſe-roome is wanting, as that the benefit of the Sunne and ayre which peirceth through the ſame, dryeth and ripeneth the corne in ſuch kindly manner, as maketh it as ſeruiceable as any other: and indeede, the firſt inuention of ſtackes, houels, reekes, and ſuch like, did not ſpring ſo much from the want of houſing, as from the good and profit which the Husbandman found to acrue to this kind of Graine onely by reaſon of laying it abroad; for it is certaine, that Beanes and Peaſe neither grow together, nor ripen together, but put forth their encreaſe one after another; for you ſhall ſee vpon one ſtalke, bloomes, ſwads, and ripe cods: ſo likewiſe in the gathering of Pulſe (when it is reaped from the ground) you ſhall ſee ſome dry and withered, ſome ripe, ſome halfe ripe, ſome abſolutely greene, and as but new in growing.

Now all theſe muſt be reapt together, and if you ſtay them in the field till all be of like drineſſe, queſtionleſſe the oldeſt will ſhake and ſhed vpon the ground before the youngeſt be ripened, and what that loſſe will redound to, euery Husbandman can iudge; ſo alſo to houſe and mow vp in cloſe mow, the dry pulſe with the greene, ſurely the greene cannot chuſe but inflame and heate the dry, and the dry ſo heated, giue fire to the greene till both be either rotted or conſumed: and hence it came, that expert Husbandmen deuiſed to lay their pulſe for the moſt part euer without doores in ſtackes, reekes, and houels, that the Sunne and wind paſſing thorow them might bring all the graine to an equall drineſſe and hardneſſe.

Againe,

Againe, Pulſe being of all graine the courſeſt and fulleſt of ſubſtance in it ſelfe, and the ſtraw euer bigge and ſubſtantiall, and full of broad thicke leaues euer moiſt and ſappy; it muſt needs follow that this graine muſt euer be moſt apt to ſweat in the mow, and ſo neceſſarily craueth the greateſt ſtore of aire, and the longeſt time in drying; ſo that to returne to my firſt purpoſe, it muſt needs follow, that no beanes or peaſe can be ripe or ſeaſoned in the mow, till it be mid *March* at leaſt; for it is an old ſaying among the beſt husbands, *That a March wind is a ſalt which ſeaſoneth all Pulſe*: And if vſe or neceſſity compell men to thraſh their pulſe before that time, the graine is ſo imperfect, that it muſt be kilne dried, or els it is fit neither for the vſe of bread nor prouender.

Now herein is to be vnderſtood that peaſe or beanes which are kilne dried, may be kept ſound, ſweete, and good, either on plaſter floores, boarded floores, or earthy floores, the ſpace of many yeares without turning or toſſing; nor needs you to reſpect how thicke the heape lye, ſince beanes after they are once dried on the kilne, or in the Sunne, neuer after will thawe, giue againe, or relent, but remaine in their firſt ſoundneſſe. But if you preſerue your Beanes for other vſes, as to boyle in your pot, and feed your ſeruants withall, as is vſed in *Somerſet-ſheire*, and many other Weſtly parts of this Kingdome, then it ſhall be good for you to take oyle barrels, oyle caske that is ſweete, and firſt Calke them all ouer within and without with aſhes, and then put your beanes therein, and cloſe vp the heads, and as it is affirmed by diuerſe great Authors of husbandry, it will keepe Beanes ſound, ſweete and good, twenty yeares: nay, ſome giue inſtances of Beanes which haue beene thus kept and preſerued the ſpace of

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one hundred and twenty yeares; and ſurely I am perſwaded, that if Beanes be well and dry got, and thraſht at a ſeaſonable time of the yeare, as in *March* or *Aprill*, that then thus kept, they will laſt the vttermoſt of a mans pleaſure.

Preſeruing of Peaſe or Fetches.

Now for the keeping and preſeruing of Peaſe or Fetches, which of all other Graine whatſoeuer, is moſt ſubiect to rottenneſſe and imperfection, becauſe out of its owne nature it is apt to breed wormes, weauils, and mytes, by reaſon of the much luſhious and ſweetneſſe of the kernell of the Graine; you ſhall in all things obſerue the ſame courſes that you doe with your Beanes, both touching your gathering, drying, ſtacking, and alſo thraſhing, for as they are moſt apteſt to grow together being neere of nature and condition one to the other, ſo it is fit that vnto them you doe apply one and the ſelfe ſame medicine or remedy.

And herein is to be noted, that as Peaſe are of more generall vſe then Beanes, as for Horſe prouender, feeding of Swine, Pigeons, Pullen, and ſuch like; as alſo for bread, pottage, to boyle with or without meate, for certainely it is a moſt wholeſome and ſtrong food as may be ſeene by the people of *Deuon-ſhire*, *Cornwall*, and *Somerſet-ſhire*, to whoſe great ſtrength of body not any reaſon can be giuen more probably then their much feeding on this Graine, and their acquaintance with much and ſtrong labour, ſo they ought with more care and circumſpection to be preſerued from all thoſe annoyances that naturally are apt to hurt them, as wormes, rottenneſſe, mould, muſtineſſe, and ſuch like.

And firſt, there is nothing better for the long and well keeping of Peaſe, then the very well drying of them,

them, either in the Sunne or on the kilne, eſpecially thoſe which you vſe for bread, prouender, or feeding of Swine: and although ſome Husbands vſe to feede Swine with vndryed Peaſe, nay many times both vndryed and vndreſt, that is to ſay, the Pulſe or Chaffe not taken away, and are of opinion, that the Graine ſo giuen, ſooner feedeth and puffeth vp Swine then the other, yet they are deceiued; for albeit it ſwell and puffe vp a beaſt, yet is the fleſh and fat neither ſo good, ſound, and long laſting, as that which is gotten with dry foode, nor doth it make a Swine ſo thirſty, and the Husbandman is euer aſſured that when his Swine drinks not well, he feeds not well; therefore what Peaſe you keepe for bread or feeding of Cattell, by all meanes dry them well, and lay them either in Garners or Floores, and they will laſt ſound and good without breeding worms or weuells, as long time as you pleaſe. But thoſe which you keepe for feode at your owne table, as in pottage, or other vſes, which muſt by no meanes be too much dryed, becauſe then they aske a double time in boyling, and ſpend a double quantity of fuell in their preparing. Some vſe after they be cleane thraſht and dreſt, to lay them in a coole cloſe Garner, either of Plaſter, Earth, or Boords, of which, Plaſter is the beſt; as for any thing that relenteth or yeeldeth moyſture, as Lime, ſtone walles, or ſuch like, it is moſt hurtfull, and immediatly maketh Peaſe mould and rot: alſo it is good to lay your Peaſe in thicke heapes in your Garner, for that will preſerue them moyſt the longeſt time, but to ſpread them thin vpon the floore, by which meanes the Sunne, Ayre, and Winde may paſſe thorow them, is not ſo good, for it drieth them too ſore, and taketh from them much of their ſweetneſſe and goodneſſe, which

ought moſt carefully to be preſerued. There be others which preſerue theſe tender meate Peaſe by thraſhing them vp, and then letting them lie in their owne pulſe or chaffe, and not dreſſing them but as they haue occaſion to vſe them, and queſtionleſſe this is a very good and laudable way, for the pulſe or chaffe doth maintaine them ſweet and moiſt, and yet keepeth them withall ſo warme and comfortable, that they laſt much longer then any other way whatſoeuer, and in this manner of preſeruing Peaſe is to be noted, that by all meanes you muſt let them lye vpon a dry earth-floore, ſo long as they are in the chaffe, rather then on the boord, or on plaſter, and yet in this caſe the boords are better then plaſter.

Laſtly, and which indeed is the beſt experiment of all other if you intend to keepe Peaſe any extraordinary long time, you ſhall take Barrells or dry Caske, well and ſtrongly bound, and pitch them within exceeding well, with the beſt pitch or bitumen that you can get, and then ſprinkle the pitch all ouer with ſtrong vinegar, then take your Peaſe being cleane and well dreſt, and put them into the Barrells, preſſing them downe cloſe and hard, then head vp the Barrells, and let them ſtand dry and coole, and they will preſerue your Peaſe ſound, ſweet, and good for any vſe whatſoeuer as long as you pleaſe, be it for ten, twenty, or thirty yeares, according to the opinions of ancient Husbandmen, and other prouant Maſters that haue liued and commanded in Townes beſieged, and Townes of Garriſon; neither ſhall any worme, mite, or weeuell, euer breed in it, or offend it, nay if any haue in former time beene bred in them, this manner of keeping the Graine, killeth them, and deſtroyeth them for euer.

Now

Now there is another ſort of Pulſe which are called Lentils or Lupins, which albeit they are not ſo generally vſed for the food or ſuſtenance of man, yet they are for horſe, ſwine, and other cattell as much in requeſt as any Graine whatſoeuer, and indeed doe feed fatter and ſooner then other ordinary Pulſe, and the fleſh ſo fed is ſweeter and pleaſanter both to the eye and to the taſte, then that which is fed with Beanes or Peaſe; alſo they are a Pulſe very Phyſicall and good for many medicines, as may appeare by the workes of many learned Phyſitians; and theſe the longer they are kept, the better they are, and fuller of profit. To preſerue them then in good and ſound eſtate, it is meete to reape them in very faire weather, and to Stacke them vp exceeding dry, and if they be laid in the Barne, or any cloſe houſe, it is not amiſſe, for they will endure houſing better then any other Pulſe, yet the ſooner you beate them out of the ſtraw, or thraſh them vp, the better it is, for husbandmen ſuppoſe there is no greater hurt to this kind of Graine, then the long keeping it in the ſtraw; for it is of ſuch rankeneſſe, that the very ſtraw and cods breed in it much putrifaction; and I my ſelfe obſerued both in *Spaine*, and in the neighbour Iſlands, where is great abundance of this kind of Graine, that they doe no ſooner gather it and bring it home, but immediately they thraſh it; nay, ſome thraſh it in the fields vpon the lands where it growes, and ſo bring it home, then ſpread it on faire boorded floores in very great heapes, or elſe lay it vp in cloſe hutches, or bings, ſuch as Wheat and other white graine is to be kept in. If you dry this kind of Pulſe in the Sun, or vpon a kiln, with a very moderate & ſoft fire, & then lay it

Preſerving of Lentils or Lupins.

vp either in cloſe garner, or cloſe hutch, it will laſt many yeares ſound, good, and without corruption; there be other Husband-men which mixe with this graine when it is thraſht, a halfe part of hot, dry, white ſand, or at leaſt couer the whole heape of Pulſe with the ſand, and doe finde that it keepes the graine very ſound and good many yeares together. But to conclude, if you take ſtrong vinegar, and a good quantity of *Lacerpitium*, and diſſolue and mixe them very well together, and then hauing laid your lentils or lupins together on a faire boorded floore, in large, broad and flat heapes, about two foote, or two foote and a halfe thicke with the vinegar and *Lacerpitium* ſprinkle ouer all the heape, and not any change of weather, froſts, wormes or other vermine ſhall doe them hurt, but they ſhall remaine ſound and good as many yeares as you pleaſe to keepe them. There are other husband-men that in ſtead of this before rehearſed, take onely ſweete oyle, and ſprinkle it all ouer the graine, and finde the ſame vertue and effect, for neither wormes nor other vermine will touch it, nor will the radicall humour thereof at any time waſte or decay, but remaine ſtrong, full and ſound without any kinde of diminiſhing, nor ſhall you finde any abatement of it, or ſhrinking in the meaſure, but that which was a buſhell this yeare, will be alſo a buſhell the next yeare, and as many yeares after as you pleaſe; which is no ſmall profit to the owner: whereas on the contrary part if the graine be either dryed in the Sunne, on the kilne, or by the winde, you ſhall hardly haue of euery ſuch buſhell ſo dryed, three pecks and a halfe againe, which is by computation at euery quarter which is eight buſhells, full one buſhell loſt, and yet this Pulſe thus preſerued

ſerued as before ſaid, ſhall bee as good for any vſe whatſoeuer fit for ſuch Corne to be imployed in, as any other dryed graine whatſoeuer, and yeeld as much euery way, and altogether as good meale, and as good meate.

Preſeruing of oates.

Now touching the preſeruing and keeping of Oates, it is to be vnderſtood that of all Graine it is leaſt caſuall, becauſe of it ſelfe naturally it breedeth no euill vermine, and is againe preſerued and defended with a double huske, whereby neither cold, moiſture, heate, nor drineſſe is able ſo ſoone to pierce and hurt it as other graines which are more thinne clad and tender, yet becauſe it is of great and neceſſary vſe both for cattell and pullen, and that neither the Husband nor Houſwife can well keepe houſe without it, you ſhall know that the beſt way to preſerue it longeſt, is, after it is thraſht to dry it well either in the Sun or on the kilne, and then either put it into cloſe Garner or cloſe caske, and it will keepe many yeares ſound and ſweet.

Preſeruing of oate-meale.

Touching the preſeruing of Oate-meale, which is the inner kirnell of the Oates, and a graine of moſt ſpeciall vſe in the husband-mans houſe, as in his pottage, in his puddings, and in many other meates neceſſarily vſed for the labouring man; It is an experiment not altogether ſo curious as any of the reſt formerly written of, for no Oate-meale can be made, but the Oats muſt be exceedingly well kilne dryed, or elſe the kirnell will not part from the huſk, and being dryed, as is fit, that drying is ſufficient to keepe and preſerue the Oate-meale diuers yeares: prouided euer that preſently after the making of your Oate-meale, you put it into dry cloſe caske or drie cloſe garner (but caske is the better) and ſo as it may

remaine exceeding dry (for any thaw or moyſture corrupts it) and as neere as you can let it haue, if it be poſſible, ſome ayre of the fire, for the warmer it ſtands, the better and longer it will laſt as experience ſheweth.

Preſeruing of any meale.

For the preſeruing or long keeping of any ſort of meale, there is no better way then firſt to boult and ſearſe him from his branne, for the branne is very apt to corrode and putrifie the meale, and to bring it to a ſaughtineſſe or muſtineſſe, then into very ſweet and cleane dry caske cloſe and well bound, treade in your meale ſo hard as you can poſſible treade it, and then head it vp cloſe, and ſo you may keepe it either by land or water as long as you pleaſe, and when you haue any occaſion to ſpend of it, be ſure to looſen no more of the meale then you preſently vſe, for the faſter and cloſer the meale lyeth together, the longer and ſweeter it will laſt, for it is the gathering in of the ayre that onely corrupts it.

And here is alſo to be noted, that you ſhould not preſently aſſoone as your meale is ground, boult from the branne, but rather let it lie a weeke or fortnight, in the bran in ſome cloſe bing or trough, and then after that time boult or ſearſe it, and you ſhall finde it to afford you in euery buſhell, more meale by at leaſt halfe a pecke then if you ſhould preſently aſſoone as it comes from the mill, whence it proceedes, that the cunning and skilfull Baker will euer haue a weeke or fortnights prouiſion of meale before hand, which lying ſo long in the branne, paies double intereſt for the continuance.

Now if it fall out ſo, that either by trade of Merchandiſe, or other occaſion, you buy any meale by way of

of tranſportation which is caskt vp (as much meale is ſold by the barrell) you ſhall then preſently as ſoone as you haue bought it (if it be for your owne vſe or expence) breake open the heads and empty the meale vpon faire ſheets on a cleane floore, and then ſpreading it abroad, let the Sunne and Aire paſſe thorow it which will dry vp the ſweat, and if there be any taint of laughtineſſe, take it away, and bring the meale to his firſt ſweetneſſe, and then immediately boult out the courſe branne, and after as was before declared, tread it hard into freſh and ſweet caske: and thus you may keepe your prouiſion of meale all the yeare long; nay, if need require two or three yeares, for after the firſt ſweat is taken away and kindly dryed, there is no doubt to be made of any that ſhall follow after.

Preſeruing of all ſmall ſeeds.

Laſtly, touching the preſeruing and keeping of all manner of ſmall ſeeds of what nature or quality ſo euer they be, whether hempe, line, rape, muſtard-ſeed, or any other garden-ſeed whatſoeuer, though truly and properly they laſt neuer aboue one yeare, nor are fit for ſeed or increaſe after that date expired, yet in as much as they are medicinable after, and a much longer time, therefore you ſhall vnderſtand that the beſt way to keepe them ſafe and ſound, and the fitteſt for vſe and profit, is firſt to gather them as ſoone as you perceiue them to be ripe, and the weather being bright, cleare and dry, then ſhall you dry or wither them in the ſhade and not in the Sunne, eſpecially vpon a plaſterd floore, where the light looketh to the South, and be ſure that as little Sunne and moiſture come to them as you can, for both are maine enemies; which done, bind them vp in bundles without thraſhing, and ſo hang them vp and keepe them in their owne cods, and

they will laſt for all vſes, a full yeare, and for ſome particular vſes two or three yeares; and in this manner you may alſo preſerue all manner of hearbes, weedes, flowers, rootes, and the barkes or rinds of all manner of trees.

Chap. 19.

How to keepe graine, either for tranſportation by Sea, or for vſe in a towne of Warre or Garriſon, from one yeare to one hundred and twenty.

The vſe of graine, pulſe at ſea.

TO ſpeake of the Graines and Pulſes which are meereſt for the ſea, and their ſeuerall vſes.

Of Rice, and the vſe.

It is to be vnderſtood that the beſt and principalleſt Graine which is indeed both moſt ſweete, moſt freſh, moſt pleaſant in taſte, and moſt long laſting, is Rice, which although it grow not much in our Kingdome, but that we are beholden to our good neighbours for the trade thereof, yet it is in ſuch plenty, where we fetch it, that we need neither complaine of the ſcarcity nor the coſt, and ſo much the rather in that a pecke thereof will go further then a buſhell of any other graine; of this Rice is made many good and wholeſome diſhes, ſome thicke, ſome thinne, ſome baked, ſome boyld, as thus: If you take a quarter of a pound of Rice, and boyle it in a pottle of water, till it come vnto an indifferent thicknes and then put into it a good lumpe of potted or barrelled butter, and as much ſugar as ſhall fait-wiſe ſeaſon it to an indifferent ſweeteneſſe, it is a diſh of meate, meete for an Emperor at ſea, wholeſome, good, and light of diſieſture, and will be as much as foure reaſonable men can well eate at a meale;

meale; for the nature of the Rice is such that it will swell in boyling and grow to that bignesse, that in an instant it will thicken a pottle; some vse the night before they boyle it, to steepe it in so much water as will onely couer the Rice all ouer, and then the next day boyle it in a pottle of water more, and the Rice so steeped will so swell, that all the first water will be drunke vp, and a great deale of lesse boyling will serue to make it ready, and sure then this a man cannot finde a cheaper way to feede men, since one pint of water and the fourth part of a quarter of a pound of Rice (which comes not to aboue a halfe penny at the deerest reckoning) is a meale sufficient for a mans eating, hauing bisket and drinke proportionably. And this dish of meate being but thus thinne boyled, is called at sea Lob-lolly, and after salt-feeding is wondrous wholesome and comfortable to any man, whether he be sicke, sound or diseased, and both abateth infirmities, and hastneth the healing of all wounds. There be others that after they haue steeped this Rice (as aforesayd) do then boyle it in like manner, till it be so thicke that a spoone may stand vpright in it, and no liquidnesse of the water perceiued, then put a good lumpe of butter into it, and boyle it with it, and stirre it about, and it will make it come most cleane out of the pot in which it is boyled; then season it with sugar and a little cynamon, and it will be a dish of meate right good and delicate, and meete for any man of what quality soeuer, that is worth goodnesse or preseruing, nor neede the quantity exceede the proportion already prescribed.

Againe, if you haue meale in the ship, if you take of this Rice steeped in water, and a little lightly boyled and seasoned with sugar cynamon and ginger, and a

good

good quantity of butter, and then bake it in little Paſties, you ſhall finde it a moſt delicate, pleaſant, and wholeſome meate, and that a penny in it ſhall go further and giue better contentment then foure peniworth of Beefe, Bacon, Fiſh, or any other hard ſalt meate; yet I doe not wiſh any man of ſhip board to make this a continuall feeding diſh, for it is both too pleaſant and too ſtrong, and where euacuation of ſome humors are wanting, may breede inconuenience in ſtrong bodies; but rather to vſe it once a weeke as a phyſicall nouriſher, or for the comfort of ſicke and diſeaſed men, whoſe ſtomackes are tane away, or elſe weakened; there may be alſo made of this Ryce in time of neceſſity (being ground to a fine meale) an excellent good bread or ruske, which is pleaſanter, ſweeter, and much longer laſting then any made Wheate, or any other graine whatſoeuer, beſides many other feedes which would in this place ſhew but too much curioſity to repeate.

Wheate, and the vſe.

The next Graine vnto Rice which is of eſtimation and great ſeruice at the Sea, is Wheate, of which although there be diuers kinds, ye they are all alike for the ſeruing of this purpoſe; onely the large and thicke huld Wheate (being well dried) will laſt the longeſt, but the ſmaller and fine skind Wheate, yeelds the purer flower, and makes the better meate. Now of this Wheate is to be made diuers diſhes of meate, for ſome doe take it and bruiſe or beate it in a bagge, till the vpper skin be beaten off, and then hauing dreſt and winnowed it, boyle it in cleane water till it burſt, and grow as thicke as pap, then take it from the fire, and being hot, put into ſeuerall diſhes of wood, or traies, ſo much in euery diſh or tray as may ſerue foure men, and ſo let it coole;

coole; then giue it to the ſicke or found, as you ſhall be directed, and it is an excellent wholeſome good meate either cold or elſe hot, and a little butter melted with it, or being againe boild in freſh water, and ſeaſoned with ſalt and a little ſugar, it makes an excellent grewell, or lob-lolly, which is very ſoueraigne at ſea; alſo your parched wheate is a very good foode at ſea, and of much requeſt and eſtimation, being ſprinkled with a little ſalt, and of this food a little will ſerue a man at a time, by reaſon that the much ſweetneſſe thereof ſoone filleth and cloyeth the ſtomacke, yet it is wondrous light of digeſtion, and breedes great ſtrength, and much good blood, as we dayly find by experience.

Of Oate-meale and the vſe.

The next Graine vnto this which is to be recommended to the ſea (and which is indeed not any thing inferiour to either of the other going before, both for ſtrength and laſting) is Oatemeale, which by reaſon of the great drineſſe, and drying thereof, feeles little or no imperfection at the ſea, as being vnapt to ſucke or draw in any of the ill or moyſt vapors thereof. Of this Oatemeale is made many good, freſh, and comfortable meates at Sea, as grewell, or Lob-lolly, by boyling it in freſh water, and ſeaſoning it with ſalt, and (if you haue it continually) ſometimes with ſugar and a few Currants, and a little mace, which is meate of great ſtrength and goodneſſe, eſpecially for ſuch as are ſicke and weake, for it is a great reſtorer of nature, and a purger of the blood; alſo to ſteepe the whole grots of Oate-meale a night in water, and then draining them, and putting it into a bag, boile it till the grots breake, then putting it out of the bag, butter it with butter, and it is an excellent foode; alſo boyling Oatemeale in freſh water with barme, or dregges and hinder endes of

your

your Beere-barrels, makes an excellent good pottage, and is of great vſe in all the parts of the Weſt country, eſpecially, where Mariners or Seamen liue, and are called by the name of Drouſſon pottage. Alſo of oate-meale is made that meate which is called in the Weſt, Waſhbrew, & may be made at the ſea at your pleaſure, being a meat of that great account amongſt *Deuonſhire* and *Cornish-men*, that they will allow it no paralell; and for mine owne part I haue heard a moſt famous and well learned Phyſitian in thoſe parts allowe it to be a meate of ſingular great ſtrength and goodneſſe, and withall ſo light of digeſtion, that a man can very hardly feit vpon it at any time; and I am the rather induced to beleeue the ſame, becauſe I haue obſerued and ſeene many of the labouring men of that Countrey to eate ſuch an vnmeaſurable quantity thereof, that in mine eye one mans ſupper would haue ſerued a whole familie.

But you will ſay, hunger and labour are ſuch excellent ſawces, that they will digeſt any thing. To that I anſwere, that I haue ſeene Gentlemen and Gentlewomen of that Countrey, of whom as much curioſity hath attendend, as is lyable to the City, nay ſuch as haue had ſickneſſe their beſt familiar, yet eate of this with great and ſharpe appetite, and when health was moſt to be feared, then to boaſt of moſt ſoundneſſe. This Waſhbrew is to looke vpon like Painters Cize, or new made Iely, being nothing but the very heart of the Oate-meale boyled and drained to that height and thickneſſe, hauing neither hull nor bran in it, but the pure meale and water, and it is to be eaten eith with wine, ſtrong beare, or ale, or with clarified honey, according to mens ſtomackes or abilities.

Now

Now this the eaters thereof affirme, that by no meanes it muſt be chawed, but rather ſwallowed by the ſpoonfull whole, becauſe chawing like a pill makes it taſte vnpleaſantly. There is againe another meate to be made of Oate-meale, which is called Girtbrew, and is ſomewhat more courſe, and leſſe pleaſant then Waſhbrew, hauing both the branne and huls in it, yet is accounted a foode of a very good ſtrength, and exceeding wholeſome for mans body, and of my knowledge much vſed and much deſired of all labouring perſons that are acquainted with it: Many other foodes there are to be made of Oateemeale, but theſe ſhall be at this time fully ſufficient.

Of Barley and the vſe.

The next graine to this I account Barley, which may be euery way vſed like vnto wheat, either to make grewell, to be creyed, parcht, or boyled: and of Barley for this purpoſe of food, the beſt is *French* Barley, the next is Barley big, or beare Barley, and the worſt are the ſpicke or battledore Barley, and our common *Engliſh* Barley.

Bucke, and the vſe.

And as Barley or Wheate, ſo you may vſe your Bucke and your *Indian Silligo*, for they are of like nature, onely aske a longer time in their beating, ſteeping, and boyling, becauſe they are naturally more hard, and more dry, by reaſon of the heate of the climate in which the beſt grow; and is euer to be obſerued for a rule, that the dryer you keepe your Corne at Sea, the better it is, the ſweeter and longer laſting.

Of Pulſe, and firſt of Beanes the vſe.

Now hauing ſhewed the vſe of theſe lighter graines, I will come to Pulſe, and ſhew their vſe and benefit at the Sea, or in beſieged Townes: and of Pulſe, I will firſt ſpeake of Beanes as a principall foode, wholeſome

and

and ſtrong, and though not ſo fine and light of digeſtion as any of the former, yet exceeding hearty and ſound, and a great breeder of good blood; they are for the moſt part to be boyled whole, till ſuch time as they appeare ſoft and tender, or begin to breake, and then drained from the water, are ſerued in traies, and well ſalted, and ſo eaten; a pottle whereof is thought a full proportion for foure men: and of theſe Beanes there are diuerſe kinds, as the common garden beane, or the French beane, which is great, broad, and flat, and theſe are the beſt to boyle, either with meate, or by themſelues, and aske the leaſt labour, becauſe their outer skinne is moſt tender, and the inward ſubſtance moſt apt to be mollified and ſoftened: they may alſo bee boyled both when they are young and greene, and when they are olde and dry, and the meate at both times is good and ſauory.

The French Beane.

The next beane to theſe are the Kidney beane which is flatter, and leſſer, and neerer the proportion of a kidney then the French beane is, and this is alſo a garden beane, and whilſt it is young and greene is to be eaten Salet wiſe after they are boyled, both the cod and beane together, and it is certaine a better ſallet cannot be taſted; for the cod or huske is euery way as excellent in taſte as the beane is; but after they grow old and dry, and that the moyſture is gone out of the cod, then it is meete to thraſh them, and then boyle them like the French beane, and they are euery way as good meate, and as ſoone boyled and as tender.

The Kidney Beane.

The next beane to theſe are your common and ordinary field beanes, which hauing tough and hard skinnes, aske more boyling then the other beanes, and are ſomewhat harder in taſte, yet a good ſound foode alſo: there

Common field beanes, the vſe.

there bee many that parch them in the fire, and thinke them then the beſt meate, becauſe the fire ſooner breakes the skinne and ſoftneth the kirnell; but they cannot be done ſo abundantly, and therefore are not ſo much in vſe.

After this great ſort of Pulſe, I will now ſpeake of the ſmaller ſort, as Peaſe and their like: and of Peaſe there be two kindes, the garden Peaſe, and the field Peaſe, and for this vſe (albeit both are very good) yet the garden peaſe are beſt, for they are ſooneſt boyled, and are moſt tender, and ſerue for moſt vſe, as for pottage, boyling, parching or ſpelting; and of theſe garden-peaſe, there are diuerſe kinds; as white peaſe, French peaſe, haſtings, rounſiuals, and ſuch like; the firſt being the longeſt laſters, the ſecond the pleaſanteſt in taſte, the third the earlieſt and tendereſt, and the laſt largeſt and fulleſt. Of peaſe and the vſe.

The Field Peaſe are onely of two kinds, as the white peaſe and the gray peaſe, and they ſeldome make pottage, becauſe they are vnapt to breake, but are onely for boiling and making of leape Peaſe, or for parching, yet a good and a ſtrong food alſo: and as we vſe Peaſe, ſo in other Countries they vſe lupins, lentil, tares, fetches, and ſuch like ſmaller pulſe, but they are neither ſo good, wholeſome, nor ſauourie in taſt, being a kinde of graine more ranke, fulſome, and breeding of ill blood and infection within, theſe in caſes of Sea-fare and Warre-fare ought principally to bee eſchewed and ſhunned. Seuerall ſorts of garden peaſe.

Now it reſteth after this long digreſſion of theſe ſeuerall Graines, and their vſes, with the meates and profits which are made for them, that we come to the ſafe manner of keeping and preſeruing them either by land or water, for victuall or tranſportation, ſo as they

they may laſt and endure without ill ſmell or rottenneſſe.

To tranſporte Graine.

And firſt for tranſportation of Graine by Sea, it is two wayes to be done, as either in great quantities for trade and the victualling of other nations, or in ſmaller quantity for victualling the men in the ſhip, prepared for a long and tedious voyage.

Tranſporting Graine for trade.

For the tranſporting of Graine for trade in great quantities, it is to be intended the voyage is ſeldome long, but from neighbour to neighbour, and therefore commonly they make cloſe decks in the ſhips to receiue the Graine, faire and euen boorded, yet if ſuch decks bee matted and lined both vnder and on each ſide, it is much the better, and this matting would be ſtrong and thinne; there be ſome which make the deckes onely of mats, and ſure it is ſweet, but not ſo ſtrong as the boord, therefore the beſt way of tranſportation is to haue ſtrong boorded decks well matted, and then ſpreading the corne of a reaſonable thickneſſe, to couer it with matting againe, and then to lay corne on it againe, and then mats againe, that betweene euery reaſonable thickneſſe of Graine a mat may lye, the profit whereof is, that when the Corne with his owne heate and the working of the Sea ſhall beginne to ſweat, which ſweat for want of ayre to dry it vp, would turne to putrifaction, then theſe mats thus lying betweene, will not onely exhale and ſucke vp the ſweat, but alſo keepe the Corne ſo coole and dry, that no imperfection ſhall come vnto it: and here is to be noted, that theſe mats ſhould rather be made of dry white bents, then of flags and bulruſh, for the bent is a firme, dry, criſpe thing, and will not relent or ſwear of it ſelfe, but the flag or bulruſh is a ſpungy and ſoft ſubſtance which

is

is neuer empty of his owne and other moiſtures.

Now for tranſporting of Graine for victuall for the ſhip, which is in much ſmaller quantity, becauſe it is but for the priuate vſe of a few within the ſhip; the one-ly beſt and ſafeſt way is to take Salt-fiſh barrels, or any caske in which any Salt-fiſh hath beene piled, as Cod, Herrings, Salmon, Sprats, or any other powdred Fiſh; and whilſt the veſſels are ſweet, you ſhall calke them both within and without plaſter, daubing them all ouer; then into them put your graine of what kind ſoeuer it be, and head them vp cloſe, and then ſtow them in ſuch conuenient dry place of the ſhip as you ſhall thinke fit, and queſtionleſſe, if beleefe may be giuen to the worthieſt Authors which haue writ in this kind, you may thus keepe your graine ſweete, ſound, and in full perfection from one yeare to an hundred and twenty yeares; but certainly, dayly experience ſhewes vs, that all kind of graine thus put vp and kept, will remaine ſound and ſweet, three, foure, and as ſome ſay, ſeuen yeares, for ſo farre hath lately been tryed: and what here I ſpeake of ſhip-boord, the like may be done in any towne of Warre or Garriſon, whether beſieged or not beſieged, or in any other place where any neceſſity ſhall compell; the proofe of this manner of piling or putting vp of graine, ſerueth as well for Land as Sea.

Tranſporting for victuall.

Chap. 20.

The enriching of all manner of barren Grounds, and to make it fruitfull to beare Hops.

THe Hop of all Plants is the moſt tender, and can endure neither too rich a ground, nor yet too poore, for being planted in the firſt, it

bringeth foorth onely leaues and no bels, and in the latter yeeldeth neither leaues nor bels.

Abating fertility.

Now in the firſt ſort of ground which is fertile and rich, I haue nothing to doe, but onely to aduiſe how you may allay and leſſen that too much fatneſſe, by mixing your hils well with chalke or ſmall ſharpe grauell, if it be a haſſell or mixt mould, and with good ſtore of red ſand if it be a ſtiffe clay, for either of theſe mixtures will in ſhort ſpace abate any fertility.

Increaſing of fertility.

But if the ſoile be contrary to this, that is, extreame barren, then you ſhall ſeeke by theſe meanes following to encreaſe the fertility: Firſt, when you haue taken view of that barren earth, which you intend to conuert to a Hop-garden, you ſhall firſt looke to the ſituation

Choyce of Earth.

thereof, whether it lye high or low, whether it be ſubiect to inundations or drownings, or that it lye ſafe and free from any ſuch annoyance: if it be ſubiect to great and deepe ouer flowes, then it is no ground for this purpoſe: but if it be onely liable but to ſome ſmall waſhings, then you may by a few ſmall draines and ſewers caſt through your allies, conuey away the water vnto

Draining water.

ſome lower ground, ſo as it may not continue long in the Gardens to do hurt. Beſides, for a further ſafety to the Hop, you ſhall make your hils a great deale bigger and higher, that when any ouer-flow ſhall happen, the water may not reach aboue the mid-part of the hill at the moſt, for the roote may indure moyſtning, but not drowning: and this water thus running through the allies, and not drowning the rootes, will bring to the ground very much fertility. But howſoeuer after you haue eaſd your ground of theſe particular faults, yet the generall fault which is barrenneſſe will remaine ſtill: therefore hauing plotted out your garden, and fenced it

ſuffici-

ſufficiently about, you ſhall then caſt vp your hils about *Michaelmas*, placing them in a very orderly manner, and making allies betweene them of foure or fiue foote bredth betweene hill and hill, ſo as a man may walke at pleaſure through and about them, neither ſhall theſe hils ſtand all directly behind another, for ſo one will ouer-ſhadow another, which is an annoyance, but according to this Figure, where there is a largeneſſe of ſpace, and a by-paſſage, through which the Sunne may come to giue comfort to euery plant.

Caſting of the hils and allies.



Theſe hils if the ground be free from water may be raiſed about two foote, or a foote and a halfe high, and of a compaſſe anſwerable to the height; neither ſo little that the hill may be ſharpe like a Sugar loafe, nor yet ſo bigge, that the hill may lye flat, and ſo retaine and hold any raine, or wet, which ſhall fall vpon it; but you ſhall keepe a due middle proportion, making the hill conuenient for your plants and poales, and ſo as it may ſhoote or put off any wet or other annoyance which ſhall fal vpon it.

Now theſe hils you ſhall not make entirely, all of the one mould, but you ſhall take as it were a third part or better thereof; then another part of the earth which lyeth vnder dunghils, and the the laſt part of ſope aſhes, & theſe three bodies you ſhall mixe equally together, & of them compound your hop-hils. But if this ſeeme ſomewhat too difficult, and that you cannot find enough for your purpoſe of either of theſe meanures; then you may take three parts of the naturall earth, & but only a forth part of the other two, and thereof mixe your hop-hils,

The compoſition of the enriching of Hils.

and it will be ſufficient to affoord you profit enough; prouided you be able once in three or foure yeares to renew it, for ſo long this will laſt in full ſtrength and power.

Preparing of the alleys. When you haue thus made vp your hills, you ſhall then pare vp with a paring ſhouell, all the greene ſwarth quite through all your alleys, at leaſt foure fingers thick, and with the ſwarth ſo pared vp, you ſhall couer all your hils almoſt to the top, turning the greene ſwarth next vnto the earth, ſo as it may rot, for that is an excellent meanure alſo. Then when your alleys are all thus cleanſed of their ſwarth, you ſhall take good ſtore of Braken or Ferne, and ſtraw it all ouer quite through all the alleys, that it may lye a good thickneſſe, almoſt to the midſt of the hils, which hauing all the Winter to rot in, will not onely be an exceeding comfort to the hils, and preſerue both them and their Plants from many euils, but alſo being ſhouelled vp together with the earth in the Spring time, will be a marueilous ſtrong meanure wherewith to repleniſh the Hils, and to make them to proſper exceedingly, and to ſaue much other coſt and charges, as well in meanure as in cariage.

The planting of Hops. When your hils are thus enriched, and your alleys thus prepared, you ſhall then open your hils in the tops, and ſet your plants, that is to ſay, in euery hill foure plants at the leaſt, being well prepared, and this ſhould be done in the moneth of *October*, and theſe plants muſt bee ſet good and deepe in the earth and couered all ouer at the leaſt foure fingers thicke; and if with the earth which couereth theſe plants, you mixe Oxe blood and Lyme, it will not onely giue great comfort and nouriſhment to the plants, but alſo defend, and ſaue the roots from wormes and other vermins,

vermines, which otherwiſe would ſeeke to deſtroy them.

After your garden is thus planted all ouer, you ſhall then let it reſt till the following Spring, and about *Aprill*, finding the ſmall twines of your Hoppes iſſued out of the hils, and running alongſt the ground, you ſhall then ſet vp your poales, which poales ſo they be long and ſtraight may be of any wood you pleaſe, as either Aſh, Elme, Withy, Willow, or Sallow, and in the ſetting vp of theſe poales you ſhall haue two very carefull reſpects: firſt, that in putting in of the poales, and faſtning them within the earth, you do not hurt the Hoppe-rootes, which a ſmall careleſneſſe may doe, but be ſure to ſet them cleare at the rootes: and that you may doe it the better, and make your poales to ſtand the faſter, it is good that you haue an iron augar wherewith firſt to pearce the ground, and then to put the poale in after, and ſo ram it in hard that it may not ſtirre: the ſecond care is that you place not one poale to ouer-ſhadow another, but that they may ſtand ſo cleere one from another, that which way ſoeuer the Sunne ſhall caſt his beames, yet euery plant (as it winds about the poale) may be an equall partaker of the ſame; this with a ſmall obſeruation in the ſetting vp of the poales, may eaſily be performed. The number of poales that you ſhall ſet vpon euery hill, muſt be anſwerable to the Syens which ſhall iſſue from the rootes, allowing to euery poale two Syens at the leaſt, and not aboue three at the moſt. Theſe Syens (when your hils are poaled) you ſhall with your hands twine about their ſeuerall poales, and thoſe which are but new peeping from the ground you ſhal ſo fold among the other branches, as they may of themſelues run about the poale; & as theſe ſo alſo all

Poaling of Hoppes.

the other twigs, which are any way deriued from the maine Sien, leauing not any at al to run vpon the ground, for that is altogether profitleſſe, and to no vſe.

Of weeding Hoppes.

For the weeding of this barren earth thus made into an Hop garden, there is little care to be had: for firſt the ſope aſhes wherewith the hils are meanured, the oxe bloud and the lime, are ſuch enemies to all manner of weeds, that they will not ſuffer any to grow where they abide: Next the Braken and Ferne which coureth the alleys is ſuch a poiſoner and ſmotherer of any thing that ſhall grow vnderneath it, that it will not ſuffer any weed to peepe or ſpring vp through it; yet if in any eſpeciall place where neither of theſe defences come, it happen that any weedes do grow, then you ſhall with your beſt care cut them away, or pull them vp, and ſo your garden ſhall remaine comely, pleaſant and fruitefull to euery proſpect.

Chap. 21.

A generall computation of men, and cattels labours: what each may do without hurt daily.

Plowing and Sowing.

TO ſpeake generally of all husbandly works where the countrey is tollerable without any extraordinary difficulty, you ſhall vnderſtand that a man may well in ſtiffe ground, plow an acre, or an acre and an halfe, and in light ſand grounds two or three acres with one teame in a day, and he may plow and ſow in ſtiffe ground two acres and a halfe each day, and in light ground foure at leaſt with one teame, and alwayes what he ſoweth, that hee may harrow the ſame daye alſo.

A man

A man may well mow of good and deepe loggy meadow, or of rough vneuen meadow, euery day one acre, mowing cleane and making a ſmooth board: of well ſtanding and good ſmooth meadow an acre and a halfe each day: and of very thin and ſhort graſſe, or vpland meadow two acres at the leaſt euery day. Mowing.

Alſo, he may mow of corne, as Barley and oates, if it be thicke, loggy and beaten downe to the earth, making faire worke, and not cutting off the heads of the eares, and leauing the ſtraw ſtill growing, one acre & an halfe in a day: but if it be good, thicke and faire ſtanding corne, then he may two acres, or two acres and a halfe in a day: but if the corne be ſhort and thin, then he may mowe three, and ſometimes foure acres in a day, and not be ouer-laboured: Alſo of Beanes he may mowe as much, and of Peaſe mixt with Beanes hauing a hooke to follow him, no leſſe; for they are workes in this nature moſt eaſie and leaſt troubleſome.

One man with a binder may well reape an acre of Wheate, or Rye in a day, if it be principall good and well ſtanding, but if laid or beaten downe with weather, then three roode is fully ſufficient for a dayes labour; but if it be thinne and vpright ſtanding, then he may reape and bind fiue roods in a day: of ſmall Peaſe, Fetches, and ſuch like, a man may well reape two acres euery day. Reaping.

Now foraſmuch as it is a cuſtome in diuers Countries (and truly is exceeding profitable and worthy in itation) to ſheafe and bind vp both Barley and Oates, as well as Wheat or Rye, and that it both ſaueth much Corne, and alſo makes it take a great deale leſſe roome, and that this labour is to be done after the mowers, as the other was after the reapers by gathering the Barley Binding of Barley and Oates.

ley or Oates vp with a ſickle or hooke, as it lies in the ſwath, and ſo binding it in ſheaues, you ſhall vnderſtand that one man in a day will bind as much as one mower can mowe; and if the men be any thing skilfull in the labour, two binders will binde as much as three mowers can mowe.

Gathering in of graine.

For the gathering or inning of graine, no man can proportion the number of loads, or quantity of ground ſhall daily be brought home, ſith the iourneyes are vncertaine, ſome going a quarter of a mile, ſome halfe a mile, and ſome a mile: therefore it is the Husbandmans beſt way, the firſt day to goe with his Teame himſelfe, and both to obſerue the labour and diſtance of place, and by that to compute what may be done after without hurt to his cattle, and where he fayles of any hope, there to take a ſtrict account of the errour; for it is either ignorance or careleſneſſe, which brings forth miſchances, ſpeaking of husbandry, as ouerthrowing the Teame, ouer-loading the Teame, breaking neceſſary inſtruments, or not reſpecting the wayes and paſſage, any of which may in a day hinder more then halfe the dayes labour.

Ditching.

Again, a man may in a day ditch & quickſet of a reaſonable ditch foure foot broad, and three foot deepe, a rod or a poll a day, allowing ſixteene foote to the rod, and ſo of larger meaſure leſſe ground, and of leſſe ground larger meaſure, according to the ſufficiency of the fence which you purpoſe to make.

Hedging.

A man alſo may hedge in a day, if the hedge be good and ſubſtantiall, that is to ſay, fiue foote high, well bound, thicke ſtackt, and cloſe layed, two rod in a day, and if the worke bee lower or thinner then double ſo much, according to the former proportion.

For

For this plaſhing of hedges, or making a quicke fence if he do it workemanly, and that the growth be high and well-growne; and then he lay it thicke, cloſe, and ſtrongly bound on the top, turning the quicke downeward and inward, to plaſh a rod a day is as much as any man can well doe, but if yee plaſh it after the weſt countrey faſhion, that is, onely cutting it downe, and laying it along cloſe to the ground, ſeeking only thickneſſe, and not much guard or comelineſſe, then he may well plaſh a rod and a halfe in a day without trouble, and ſure in this worke is great care and art to be vſed as well for the preſeruation of the quicke, as the goodneſſe of the fence, being a thing of worth and validity to euery Husband-man. Plaſhing.

Againe, a man may delue or digge, as for garden mould, Hempe-yard, Flaxe-yard, or for the ſetting of corne, or leuelling of vneuen places, one rood in a day, and the ground ſo digged and delued, he may rake, dreſſe, and leuell, in the ſame day alſo, but if he digge it deepe, and trench it, and meanure it, as is meete; either for garden, orchard, or corne ſetting, then to delue halfe a rood in a day, is a very great proportion, becauſe ordinarily to delue, as to receiue ordinary ſeeds, requires but one ſpade graft in depth, but extraordinarily to delue, as for inriching and bettering of the ground, and to cleanſe it from ſtones, weedes and other annoyances, will require two ſpade graft at the leaſt. Deluing.

Laſtly, a man may thraſh if the corne be good and cleane, without ſome extraordinary abuſe or pouerty in the graine, in one day foure buſhels of Wheate or Rye, ſix buſhels of Barly or Oates, and fiue buſhels of Beanes or Peaſe, but the Pulſe muſt then bee imagined to be exceeding good, otherwiſe a man ſhall thraſh leſſe Thraſhing.

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of it, then of any other kinde of graine, for as when it is well loaden, it yeeldeth plentifully, ſo when it is poore and lightly loaden, it yeeldeth little or nothing, and yet hath not one ſtroke leſſe of the flaile, nor any labour ſaued more then belongs to the beſt Pulſe whatſoeuer being euer at leaſt three times turned, and foure times beaten ouer.

The particular expence of a day.

Hauing thus generally runne ouer (in a ſhort computation) the labous of the husbandman, I will now briefly as I can, goe ouer the particular daies labours of a Farmer or Plowman, ſhewing the particular expence of euery houre in the day, from his firſt riſing, till his going to bed, as thus for example: we will ſuppoſe it to be after *Chriſtmas*, and about plow-day (which is the firſt letting out of the plow) and at what time men either begin to fallow, or to breake vp Peaſe-earth which is to lye to bait, according to the cuſtome of the Countrey; at this time the Plowman ſhall riſe before foure of the clocke in the morning, and after thankes giuen to God for his reſt, and the ſucceſſe of his labours, he ſhall goe into his ſtable, or beaſt-houſe, and firſt he ſhall fodder his cattle, then cleanſe the houſe, and make the booths cleane; rubbe downe the cattle, and cleanſe their skins from all filth, then he ſhall curry his horſes, rubbe them with cloathes and wiſpes, and make both them and the ſtable as cleane as may be, then he ſhall water both his oxen and horſes, and houſing them againe, giue them more fodder, and to his horſe by all meanes prouender, as chaffe and dry Peaſe or Beares, or Oate-hulls, Peaſe or Beanes, or cleane Oates, or cleane garbadge (which is the hinder ends of any kinde of graine but Rye) with the ſtraw chopt ſmall amongſt it according as the ability of the Husbandman is.

And

And whilſt they are eating their meate, he ſhall make ready his collars, hames, treates, halters, mullens, and plowgeares, ſeeing euery thing fit, and in his due place, and to theſe labours I will alſo allow full two houres, that is, from foure of the clocke till ſixe, then ſhall he come in to breakefaſt, and to that I allow him halfe an houre, and then another halfe houre to the gearing and yoaking of his cattle, ſo that at ſeuen of the clocke he may ſet forward to his labour, and then he ſhall plow from ſeuen of the clocke in the morning, till betwixt two and three in the afternoone, then he ſhall vnyoake and bring home his cattle, and hauing rub'd them, dreſt them, and cleanſed away all durt and filth, he ſhall fodder them and giue them meate, then ſhall the ſeruants goe into their dinner, which allowed halfe an houre, it will then be towards foure of the clocke, at what time he ſhall goe to his cattell againe, and rubbing them downe, and cleanſing their ſtalles, giue them more fodder; which done, he ſhall goe into the barnes, and prouide and make ready fodder of all kinds for the next day, whether it be hay, ſtraw, or blend fodder, according to the ability of the Husbandman: this being done and caried into the ſtable, oxe-houſe, or other conuenient place, he ſhall then goe water his cattell, and giue them more meate, and to his horſe prouender, as before ſhewed: and by this time it will draw paſt ſixe of the clocke, at what time he ſhall come in to ſupper, and after ſupper he ſhall either by the fire ſide, mend ſhooes both for himſelfe and their family, or beate and knock gempe or flaxe, or picke and ſtampe apples, or crabs for cider or verdiuice, or elſe grind malt on the quernes, picke candle ruſhes, or doe ſome husbandly office within doores till it be full eight a clocke: Then ſhall he take

take his Lanthorne and candle, and goe to his cattell, and hauing cleanſed the ſtalles and plankes, litter them downe, looke that they be ſafely tyed, and then fodder and giue them meate for all night, then giuing God thankes for benefits receiued that day, let him and the whole houſhold goe to their reſt till the next morning.

Now it is to be intended, that there may be in the houſhold more ſeruants then one; and ſo you will demand of me what the reſt of the Seruants ſhall be imployed in before and after the time of plowing: To this I anſwer, that they may either goe into the barne and thraſh, fill or empty the malt-fat, load and vnload the kilne, or any other good and neceſſary worke that is about the yard, and after they come from plowing, ſome may goe into the barne and thraſh, ſome hedge, ditch, ſtop gaps in broken fences, dig in the Orchard or Garden, or any other out-worke which is needfull to be done, and which about the Husbandman is neuer wanting, eſpecially one muſt haue a care euery night to looke to the mending or ſharpening of the Plow-irons, and the repairing of the Plow and Plow geares, if any be out of order, for to deferre them till the morrow, were the loſſe of a dayes worke, and an ill point of husbandry.

Particular labours of Cattell.

Now for the particular labours of Cattell, though it be already incluſiuely ſpoken of in that which is gone before, where I ſhew you how much a man may conueniently plow in a day with one Teame or draught of cattell, yet for further ſatisfaction, you ſhall vnderſtand, that in your cattell there are many things to be obſerued, as the kind, the number, and the ſoile they labor in, for the kind which are Oxen, Buls, or Horſes, the beſt for the draught, are Oxen, and the reaſons I haue ſhew-

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ed in my former workes, the next are Horſes, and the worſt Bulls, becauſe they are moſt troubleſome; the number fit for the plow is eight, ſixe, or foure; for the Cart, fiue or foure; and for the Waine neuer vnder ſixe, except in leading home of harueſt, where loading eaſily, foure very good Oxen are ſufficient, for the ſoile if it be of the toughest and deepeſt earth, eight beaſt can doe no more but fallow or breake vp Peaſe earth, no nor fewer ſtirre, if the ſeaſon grow hard and dry; for ſoyling, winter rigging, and ſeed furrow, ſixe beaſts may diſpatch that labour: if the ſoile be mixt and haſſ'l, then ſixe may fallow and ſow Peaſe, and foure doe euery other ordure: but if it be light and eaſie ſand, then foure is enow in euery ſeaſon. For the quantity of their worke, and oxe plow may not doe ſo much as a horſe-plow, becauſe they are not ſo ſwift, nor may be driuen out of their pace, being more apt to ſurfet then horſes be, ſo that for an oxe plow to doe an Acre, and a horſe-plow an Acre and a rood, or an Acre and an haife in good Ground, is worke fully ſufficient.

Chap. 22.

The applying of Husbandry to the ſeuerall Countries of this Kingdome, wherein is ſhewed the office and duty of the Carter or Plowman.

IT is to be vnderſtood that Husbandry doth varie according to the nature and climats of Countries; not one rule obſerued in all places, but according as the earth, the ayre, the much or little heat, moiſture or cold doth increaſe or diminiſh, ſo muſt the skilfull Husbandman alter his ſeaſons,

ſons, labours and inſtruments; for in ſtiffe Clayes, as are all the fruitfull Vales of this Kingdome (of which I haue named moſt part in a Chapter before) as alſo *Huntingtonſhire*, *Bedfordſhire*, *Cambridgeſhire*, and many other of like nature, all manner of arable workes muſt be begun betimes in the yeare, and the plowes and inſtruments muſt be of large ſize and ſtrong timber, and the labour great and painfull: ſo alſo in mixt ſoiles that are good and fruitfull, as *Northamptonſhire*, *Hartfordſhire*, moſt part of *Kent*, *Eſſex*, *Barkſhire*, and Countries of like nature, all arable toyles would begin at latter ſeaſons, and the plowes and inſtruments would be of middle ſize and indifferent timbers, and the labour ſomewhat leſſe then the other: but the light ſandy grounds which haue alſo a certaine naturall fruitfulneſſe in them, as in *Norfolke*, *Suffolke*, moſt part of *Lincolnſhire*, *Hampſhire*, *Surry*, and Countries of that nature, all arable toiles would begin at the lateſt ſeaſons, and the plowes and inſtruments would be of the ſmalleſt and lighteſt ſize, and of the leaſt timber, and the labour of all other is eaſieſt.

Laſtly, for the barren vnfruitfull earths) of which onely I haue written in this Booke) as is *Deuonſhire*, *Cornwall*, many parts of *Wales*, *Darbyſhire*, *Lancaſhire*, *Cheſhire*, *Yorkeſhire*, and many other like or worſe then they, the arable toiles would haue a fit ſeaſon of the yeare, according to the temperateneſſe of the yeare, which if it happen early, then you muſt begin your labours at later ſeaſons, and for your plow and inſtruments, they muſt not keepe any certaine proportion, but be framed euer according to the ground, the ſtronger and ſtiffer ground hauing euer the ſtrong and large plow with inſtruments of like kind; and the lighter earth, a

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plow and inſtruments of more eaſie ſubſtance; as for the labour, it muſt be ſuch and no other then that which hath beene already declared in this booke.

And hence it comes that the office and duty of euery skilfull plowman or carter, is firſt to looke to the nature of the earth, next to the ſeaſons of the yeare, then to the cuſtomes and faſhions of the place wherein he liueth: which cuſtomes although they be held as ſecond natures amongſt vs, and that the beſt reaſons of the beſt workemen commonly are, that thus I doe becauſe thus they doe; yet would I wiſh no man to bind himſelfe more ſtrictly to cuſtome, then the diſcourſe of reaſon ſhall be his warrant, and as I would not haue him to preiudicate in his owne opinion, ſo I would not haue him too great a ſlaue to other mens traditions, but ſtanding vpon the ground of reaſon made good by experience, I would euer haue him profit in his owne indgement. The Carters office.

Now the further office and duty of the Husbandman, is with great care and diligence to reſpect in what ſort or faſhion to plow his ground; for although I haue in the former Chapters ſhewed how he ſhall lay his furrowes, what depth he ſhall plow them, and how hee ſhall be able to raiſe and gaine the greateſt ſtore of mould, yet is there alſo another conſideration to bee had, no leſſe profitable to the husbandman then any of the former, and that is how to lay your lands beſt for your owne profit and eaſe, as alſo the eaſe of your Cattell, which ſhall draw within your draught: as thus for inſtance: if your arable land ſhall lye againſt the ſide of any ſteepe hill (as for the moſt part all barren earths doe) if then you ſhall plow ſuch land directly againſt the hill, beginning below, and ſo aſcen-

aſcending ſtraight vpright and ſo downe againe, and vp againe; this very labour and toiling againſt the hill will breed ſuch a bitter wariſomneſſe to the cattell, and ſuch a diſcouragement, that you ſhall not be able to compaſſe one halfe part of your labour; beſides, the danger of ouer-heating and ſurfetting of your Beaſts, whence will ſpring many mortall diſeaſes: Therefore when you ſhall plow any ſuch ground, be ſure euer to plow it ſide-waies ouer-thwart the hill, where your beaſts may tread on the leuell ground, and neuer directly vp and downe, ſo ſhall the compaſſe and meanure which you lay vpon the ground not be ſo ſoone waſht away from the vpper part of the ground, becauſe the furrowes not lying ſtraight downe in an eauen deſcent, but turned croſſe-wiſe vpward againſt the hill, it muſt neceſſarily hold the ſoile within it, and not let it waſh away.

Of Cattell for draught.

Againe it is the office of euery good Plow-man to know what Cattell are meeteſt for his draught; as whether Oxen, or Horſe, or both Oxen and Horſe: wherein is to be vnderſtood, that although of all draughts whatſoeuer within this kingdome, there is none ſo good to plow withall both in reſpect of the ſtrength, ſtability, indurance and fitneſſe for labour, as the Oxen are, in whome there is ſeldome or neuer any loſſe, becauſe whenſoeuer his ſeruice faileth in the draught, his fleſh will be of good price in the ſhambles; yet notwithſtanding in this caſe a man muſt neceſſarily bind himſelfe much to the cuſtome of the Countrie, and faſhion of his neighbours; for if you ſhall liue in a place where fuell is ſcarce, and farre to be fetcht, as commonly it is in all barren Countries, which for the moſt part are ſtony Champaines or cold Mountaines; and your neighbours as well for the ſpeed of their iournies, as for the length

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keepe horſe draughts: in this caſe you muſt alſo doe the like, or elſe you ſhall want their companies in your iourney, which is both diſcomfort and diſprofit if any miſchance or caſualty ſhall happen, orbeing inforſt to driue your oxen as faſt as they doe their horſe, you ſhall not onely ouer-heat, tire, bruiſe, and ſpoile them; but alſo make them vtterly vnfit either for feeding or labour: and therefore if your eſtate be meane and that you haue no more but what neceſſity requires, then you ſhall ſort your Plow or Teeme according to the faſhion of your Countrey, and the vſe of your neighbours: but if God haue bleſt you with plenty, then it ſhall not be amiſſe for you to haue euer an Oxe-draught or two to till your Land; and a Horſe-draught to doe all your forraine and abroad buſineſſes: ſo ſhall your worke at home euer goe conſtantly forward, and your outward neceſſary prouiſions neuer be wanting. Now for the mixture of Oxen and Horſe together, it falleth out often times, that the Plowman muſt of force be prouided with cattell of both kind, as if he happen to liue in a Rocky Countrie, where the ſteepneſſe of the hils, and narrowneſſe of the waies will ſuffer neither Cart, Waine, nor Tumbrell to paſſe; in this caſe you ſhall keepe Oxen for the Plow to till the ground with, and Horſes to carrie pots or hookes: the firſt to carry forth your meanure, and the other to bring home your hay and corne-harueſt, your fuell and other prouiſions which are needfull for your family; as they doe both in *Cornwall*, and all other mountainous Countries, where Carts and Waines and ſuch like draughts haue no poſſible paſſage.

Againe, it is the office and duty of euery good Plowman to know his ſeueral labours for euery ſeuerall Moneth through the whole yeare, whereby no day nor

houre may be miſpent, but euery time and ſeaſon employ d according as his nature requireth: as thus for example.

Ianuary. In the moneth of *Ianuary*, the painfull Plowman, if he liue in fertile and good ſoyles, as among rich, ſtiffe, ſimple clayes, he ſhall firſt plow vp his peaſe-earth, becauſe it muſt lie to take baite before it be ſowne; but if he liue in fruitfull well mixt ſoyles, then in this moneth he ſhall begin to fallow the field he will lay to reſt the yeare following; but if he liue vpon hard barren earths (of which chiefly I write) then in this moneth he ſhall water his Meadowes and Peſture grounds, and he ſhall draine and make dry his arable grounds, eſpecially where he intends to ſow Peaſe, Oates, or Barley, the ſeed-time following. Alſo he ſhall ſtub vp all ſuch rough grounds as he intends to ſow the yeare following, and ſhall meanure and trimme vp your Garden-moulds, you ſhall comfort with meanure, ſand, or lyme, or all three mixt together, the roots of all barren fruit trees: and alſo cut downe all ſuch timber, onely there will be loſſe in the barke, for the time is ſomewhat too early for it to riſe. Laſtly, you may tranſplant all ſorts of Fruit-trees, the weather being open, and the ground eaſie: you may reare Calues, remoue Bees, and for your owne health keepe your body warme, let good diet and wholeſome be your Phyſitian, and rather with exerciſe then ſauce, encreaſe your appetite.

February. In the moneth of *February*, either ſet or ſow all ſorts of Beanes, Peaſe, and other Pulſe, and the ſtiffer your ground is, the ſooner begin your worke, prepare your garden mould, and make it eaſie and tender, prune and trimme all ſorts of Fruit-trees from moſſe, cankers, and all ſuperfluous branches; plaſh your hedges, and lay

lay your quicklets cloſe and intire together; plant Roſes, Gooſeberries, and any fruit that growes vpon little buſhes; graft at the latter end of this moneth vpon young and tender ſtockes, but by all meanes ouerlade not the ſtockes.

Laſtly, for your health, take heed of cold, forbeare meats that are ſlimy & flegmatique; and if need require, either purge, bathe, or bleed, as Art ſhall direct you.

In the moneth of *March*, make an end of ſowing of all ſorts of ſmall pulſe, and beginne to ſow Oates, Barley, and Rye, which is called *March*-Rye; graft all ſorts of fruit trees, and with young plants and ſyens repleniſh your Nurcery, couer the roots of all trees that are bared, and with fat earth lay them cloſe and warme: if any tree doe grow barren, bore holes in the roote, and driue hard wedges or pins of oake wood therein, and that will bring fruitfulneſſe: tranſplant all ſorts of Summer flowers, and giue new comfort of meanure and earth to all earely outlandiſh flowers, eſpecially to the *Crowne Emperiall*, *Tulippos*, *Hyacinth*, and *Narciſſus*, of all ſhapes and colours, cut downe vnder-wood for fuell and fencing, and looke well to your Ewes, for then is the principall time of yeaning: And laſtly, bathe often, and bleed but vpon extremity, purge not without good counſell, and let your dyet be coole and temperate. March.

In the moneth of *Aprill* finiſh vp all your Barley-ſeed, and begin to ſow your Hempe and Flax: ſow your garden ſeeds and plant all ſorts of hearbs; finiſh grafting in the ſtocke, but begin your principall inauguration, for then the rinde is moſt plyant and gentle: open your hiues, and giue Bees free liberty, leaue to ſuccour them with food, and let them labour for their liuing. Aprill.

Now cut downe all great Oake timber, for now the barke will riſe, and be in ſeaſon for the Tanner. Now ſcowre your ditches, and gather ſuch meanure as you make in the ſtreets and high-waies, into great heapes together; lay your meadowes, ſleight your corne-grounds, gather away ſtones, repaire your high waies, ſet Oziers and Willowes, and caſt vp the bankes and munds of all decayed fences.

Laſtly, for your health, either purge, bathe or bleed, as you ſhall haue occaſion, and vſe all wholeſome recreation, for then moderate exerciſe in this moneth, there is no better Phyſicke.

May In the moneth of *May* ſow Barley vpon all light ſands and burning grounds, ſo likewiſe doe your Hempe and Flaxe, and alſo all ſorts of tender garden-ſeeds, as are Cucumbers and Mellons, and all kind of ſweete ſmelling herbs and flowers; Fallow your ſtiffe clayes; Summer ſtirre your mixt earth, and foyle all light and looſe hot ſands: prepare all barren earth for Wheat and Rye, Burne baite, Stub gorſſe or Furres, and roote out Broome and Ferne: begin to fold your ſheepe, leade forth meanure, and bring home fuell and fencing, weed your winter-corne, follow your common workes, and put all ſorts of cattell to graſſe, either in paſture or tether: put your Mares to the Horſe, let nothing be wanting to furniſh the Dairy: and now put off all your winter-fed fat cattell, for now they are ſcarceſt and deareſt, put young Steares and dry Kine now to feed at freſh graſſe, and away with all Peaſe fed ſheepe for the ſweetneſſe of graſſe mutton will pull downe their prices.

Laſtly for your health, vſe drinke that will coole and purge the bloud, and all other ſuch phyſicall precepts, as true Artificial preſcribe you: Eu. beware of Mountebanks

te'banks and old wiues tales, the latter hath no ground, and the other no truth but apparant coſenage.

In the moneth of *Iune*, carrie land, marle, lime, and meanure of what kind ſoeuer to your land; bring home your coales and other neceſſary fuell fetcht farre off, ſheare early fat ſheepe, ſow all ſorts of tender hearbs, cut ranke low meadowes, make the firſt returne of your fat cattell, gather early Summer fruits, diſtill all ſorts of Plants and hearbs whatſoeuer. Iune.

And laſtly for your health, vſe much exerciſe, thin dyet, and chaſte thoughts.

In the moneth of *Iuly*, apply your hay-harueſt, for a day ſlackt is many pounds loſt, chiefly when the weather is vnconſtant, ſheare all manner of field-ſheepe, Summer ſtir rich ſtiffe grounds, foile all mixt earths, and latter foyle all looſe hot ſands, let hearbs you would preſerue, now runne to ſeed, cut off the ſtalkes of outlandiſh flowers, and couer the roots with new earth, ſo well mixt with meanure as may be, ſell all ſuch Lambs as you feed for the Butcher, and ſtill lead forth ſand, marle, lyme and other meanure; fence vp your Copſes, graze your elder vnder-woods, and bring home all your field-timber. Iuly.

And laſtly for your health, abſtaine from all Phſicke, bleed not, but vpon violent occaſion, and neither meddle with Wine, Women, nor other wantonneſſe.

In the moneth of *Auguſt* apply your Corne-harueſt, ſheare downe your Wheat and Rye, mowe your Barley and Oats, and make the ſecond returne of your fat ſheepe and cattle; gather all your Summer greater fruit, plums, apples, and peares, make your Summer or ſweet Perry and Cider; ſet ſlips and Syens of all ſorts of Gilly-flowers, and other flowers, and tranſplant them Auguſt.

that were ſet the ſpring before: & at the end of this moneth, begin to winter-rig all fruitfull ſoyles whatſoeuer; geld your Lambes, carry meanure from your Doue-coates, and put your Swine to the early or firſt maſt. And laſtly for your health, ſhun feaſts and banquets, let Phiſicke alone, hate wine, and onely take delight in drinkes that are coole and temperate.

September. In the moneth of *September*, reape your peaſe, beanes, and all other pulſe, making a finall end of your harueſt; now beſtow vpon your wheat land your principall meanure, and now ſow your wheat and rye, both in rich, and in barren climats; now put your ſwine to maſt of all hands, gather your winter fruite, and make ſale of your wooll, and other ſommer commodities; now put off thoſe ſtockes of Bees, you meane to ſell or take for your owne vſe; cloſe thatche, and dawbde warme, all the ſuruiuing hiues, and looke that no droanes, mice or other vermine be in or about them, now thatch your ſtackes and reekes, thraſh your ſeede Rye and Wheate, and make an ende with your Cart of all forraine iourneyes.

Laſtly, for your health in this moneth vſe Phyſicke, but moderately, forbeare fruits that are too pleaſant or rotten, and as death ſhun ryot and ſurfeit.

October. In the moneth of *October*; finiſh vp your wheat-ſeed, ſcowre ditches and ponds, plaſh and lay hedges and quickſet, tranſplant, remoue, or ſet all manner of fruite trees, of what nature or quality ſoeuer; make your winter cyder and perry, ſpare your priuate paſtures, and eate vp the corne-fields and commons, and now make an ende of winter ridging, draw furrowes to draine and keepe dry your new ſowne Corne, follow hard the making of your Malt, reare all ſuch calues as ſhall fall, and

weane

weane thoſe foales from your draught mares, which the Spring before were foaled: now ſell all ſuch ſheepe as you will not winter, giue ouer folding, and ſeparate Lambes from the Ewes which you purpoſe to keepe for your owne ſtocke.

Laſtly, for your health refuſe not any needfull Phyſicke at the hands of the learned Phyſitian, vſe all moderate ſports, for any thing now is good which reuiueth the ſpirits.

In the moneth of *Nouember* you may ſowe either wheate or rye in exceeding hot ſoyles, you may then remoue all ſorts of fruite trees, and plant great trees, either for ſhelter or ſhadow: now cut downe all ſorts of timber, for plowes, carts, axeltrees, naues, harrowes, & other husbandly offices, make now the laſt returne of your graſſe fed cattle; bring your ſwine from the maſte, and feed them for ſlaughter, reare what calues ſo euer fall, and breake vp all ſuch hempe and flaxe as you intend to ſpin in the winter ſeaſon. Nouember.

Laſtly, for your health, eate good wholeſome and ſtrong meates, very well ſpiced and dreſt, free from rawneſſe, drinke ſweete Wines, and for diſgeſtion euer before cheeſe preferre good and moderate exerciſe.

In the moneth of *December*, put your ſheepe and ſwine to the Peaſe Reekes, and fat them for the ſlaughter and market; now kill your ſmall Porkes and large Bacons, lop hedges and trees, ſaw out your timber for building, and lay it to ſeaſon, and if your land be exceeding ſtiffe, and riſe vp in an extraordinary furrow, then in this moneth beginne to plow vp that ground December.

whereon you meane to sow cleane beares onely, now couer your dainty fruite trees all ouer with canuase, and hide all your best flowers from frosts and stormes with rotten old horse-litter; now draine all your corne-fields, and as occasion shall serue, so water and keepe moyst your medowes; now become the Fowler with Peece, Nets and all manner of Engin, for in this Moneth no foule is out of season: Now fish, for the Carpe, the Breame, Pyke, Tench, Barbell, Peale and Salmon. And lastly, for your health, eate meates that are hot and nourishing: drinke good wine that is neate, sprighty and lusty, keepe thy body well clad, and thy house warme, forsake whatsoeuer is flegmaticke, and banish all care from they heart, for nothing is now more vnwholesome, then a troubled spirit.

Many other obseruations belong vnto the office of our skilfull Plowman or Farmer; but since they may be imagined too curious, too needlesse, or too tedious, I will stay my Penne with these already rehearsed, and thinke to haue written sufficiently, touching the application of grounds and office of the Plowman.

The end of Markham's *farewell to Husbandry.*

FINIS.

A NEVV ORCHARD AND GARDEN

OR

The beſt way for planting, grafting, and to make *any ground good, for a rich Orchard: Particularly in the North,* and generally for the whole kingdome of *England,* as in nature, *reaſon, ſituation, and all probabilitie, may and doth appeare.*

With the Country Houſewifes Garden for hearbes of common vſe *their vertues, ſeaſons, profits, ornaments, varietie of knots, models* for trees, and plots for the beſt ordering of Grounds and Walkes.

AS ALSO

The Husbandry of Bees, with their ſeuerall vſes and annoyances all being the experience of 48. yeares labour, and now the ſecond time corrected and much enlarged, by *William Lawſon.*

Whereunto is newly added the Art of propagating Plants, with the true *ordering of all manner of Fruits, in their gathering, carring home, & preſeruation.*



LONDON,
Printed by *Nicholas Okes* for IOHN HARISON, at the golden Vnicorne in Pater-noſter-row. 1631.

A

NEW ORCHARD

AND

OR

TO THE RIGHT VVORSHIPFVLL

SIR HENRY BELOSSES. Knight and Baronet.

Worthy Sir,



HEn in many yeeres by long experience I had furnished this my Northerne Orchard and Countrey Garden with needfull plants and vsefull hearbes, I did impart the view thereof to my friends, who resorted to me to conferre in matters of that nature, they did see it, and seeing it desired, and I must not denie now the publishing of it (which then I allotted to my priuate delight) for the publike profit of others. Wherefore, though I could pleade custome the ordinarie excuse of all Writers, to chuse a Patron and Protector of their Workes, and so shroud my selfe from scandall vnder your honourable fauour, yet haue I certaine reasons to excuse this my presumption: First, the many courtesies

you haue vouchsafed me. Secondly, your delightfull skill in matters of this nature. Thirdly, the profit which I receiued from your learned discourse of Fruit-trees. Fourthly, your animating and assisting of others to such endeuours. Last of all, the rare worke of your owne in this kind: all which to publish vnder your protection, I haue aduentured (as you see) Vouchsafe it therefore entertainement, I pray you, and I hope you shall finde it not the vnprofitablest seruant of your retinue: for when your serious employments are ouerpassed, it may interpose some commoditie, and raise your contentment out of varietie.

Your Worships

most bounden,

WILLIAM LAVVSON.

THE PREFACE
to all well minded.

ART hath her firſt orginall out of experience, which therefore is called the Schoole-miſtreſſe of fooles, becauſe ſhe teacheth infallibly, and plainely, as drawing her knowledge out of the courſe of Nature, (which neuer failes in the generall) by the ſenſes, feelingly apprehending, and comparing (with the helpe of the minde) the workes of nature; and as in all other things naturall, ſo eſpecially in Trees: for what is Art more then a prouident and skilfull Collectrix of the faults of Nature in particular workes, apprehended by the ſenſes? As when good ground naturally brings forth thiſtles, trees ſtand too thicke, or too thin, or diſorderly, or (without dreſſing) put forth vnprofitable ſuckers, and ſuch like. All which and a thouſand more, Art reformeth, being taught by experience: and therefore muſt we count that Art the ſureſt, that ſtands vpon experimentall rules, gathered by the rule of reaſon (not conceit) of all other rules the ſureſt.

Whereupon haue I of my meere and ſole experience, without reſpect to any former written Treatiſe, gathered theſe rules, and ſet them downe in writing, not daring to hide the leaſt talent giuen me of my Lord and Maſter in Heauen: neither is this iniurious to any, though it differ from the common opinion

in diuers points, to make it knowne to others, what good I haue found out in this faculti e by long triall and experience. I confesse freely my want of curious skill in the Art of planting. And I admire and praise Plinie, Aristotle, Virgil, Cicero, *and many others for wit and iudgement in this kind, and leaue them to their times, manner, and seuerall Countries.*

I am not determined (neither can I worthily) to set forth the praises of this Art: how some, and not a few, euen of the best, haue accounted it a chiefe part of earthly happinesse, to haue faire and pleasant Orchards, as in Hesperia *and* Thessaly, *how all with one consent agree, that it is a chiefe part of Husbandry (as* Tully de senectute) *and Husbandry maintaines the world; how ancient, how profitable, how pleasant it is, how many secrets of nature it doth containe, how loued, how much practised in the best places, and of the best: This hath already beene done by many. I only aime at the common good. I delight not in curious conceits, as planting and graffing with the root vpwards, inoculating Roses on Thornes, and such like, although I haue heard of diuers prooued some, and read of moe.*

The Stationer hath (as being most desirous with me, to further the common good) bestowed much cost and care in hauing the Knots and Models by the best Artizan cut in great varietie, that nothing might be any way wanting to satisfie the curious desire of those that would make vse of this Booke.

And I shew a plaine and sure way of planting, which I haue found good by 48. yeeres (and moe) experience in the North part of England: *I preiudicate and enuie none, wishing yet all to abstaine from maligning that good (to them vnknowne) which is well intended. Farewell.*

Thine, for thy good. *W. L.*

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THE BEST, SVRE AND READIEST VVAY

to make a good *Orchard* and *Garden*.

CHAPTER. I.

Of the Gardner, and his Wages.

WHosoeuer desireth & endeauoureth to haue a pleasant, and profitable Orchard, must (if he be able) prouide himselfe of a Fruicterer, religious, honest, skilful in that faculty, & therwithall painfull: By religious, I meane (because many think religion but a fashion or custome to go to Church) maintaining, & cherishing things religious: as Schooles of learning, Churches, Tythes, Church-goods, & rights; and aboue all things, Gods word, & the Preachers thereof, so much as he is able, practising prayers, comfortable conference, mutuall instruction to edifie, almes, and other works of Charity, and all out of a good conscience. Religious.

Honesty in a Gardner, will grace your Garden, and all your house, and helpe to stay vnbridled Seruingmen, giuing offence to none, not calling your name into question by dishonest acts, nor infecting your family by euill counsell or example. For there is no plague so infectious as Popery and knauery, he will not purloine your profit, nor hinder your pleasures. Honest.

Concerning his skill, he must not be a Scoliſt, to make shew or take in hand that, which he cannot performe, especially in so weighty a thing as an Orchard: Skilfull.

than the which, there can be no humane thing more excellent, either for pleaſure or profit, as ſhall (God willing) be proued in the treatiſe following. And what an hinderance ſhall it be, not onely to the owner, but to the common good, that the vnſpeakeble benefit of many hundred yeeres ſhall be loſt, by the audacious attempt of an vnskilfull Arboriſt.

Painfull. The Gardner had not need be a idle, or lazie Lubber, for ſo your Orchard being a matter of ſuch moment, will not proſper. There will euer be ſome thing to doe. Weedes are alwaies growing. The great mother of all liuing Creatures, the Earth, is full of ſeed in her bowels, and any ſtirring giues them heat of Sunne, and being laid neere day, they grow: Mowles worke daily, though not alwaies alike. Winter herbes at all times will grow (except in extreame froſt.) In Winter your young trees and herbes would be lightned of ſnow, and your Allyes cleanſed: drifts of ſnow will ſet Deere, Hares, and Conyes, and other noyſome beaſts ouer your walles & hedges, into your Orchard. When Summer cloathes your borders with greene and peckled colours, your Gardner muſt dreſſe his hedges, and antike workes: watch his Bees, and hiue them: diſtill his Roſes and other herbes. Now begins Summer Fruit to ripe, and craue your hand to pull them. If he haue a Garden (as he muſt need) to keepe, you muſt needs allow him good helpe, to end his labours which are endleſſe, for no one man is ſufficient for theſe things.

Wages. Such a Gardner as will conſcionably, quietly and patiently, trauell in your Orchard, God ſhall crowne the labours of his hands with ioyfulneſſe, and make the clouds drop fatneſſe vpon your trees, he will prouoke your loue, and earne his wages, and fees belonging to his

his place: The house being serued, fallen fruite, superfluity of herbes, and flowers, seedes, graffes, sets, and besides other offall, that fruit which your bountifull hand shall reward him withall, will much augment his wages, and the profit of your bees will pay you backe againe.

If you be not able, nor willing to hire a gardner, keepe your profits to your selfe, but then you must take all the paines: And for that purpose (if you want this faculty) to instruct you, haue I vndertaken these labours, and gathered these rules, but chiefly respecting my Countries good.

Chap. 2.
Of the soyle.

FRuit-trees most common, and meetest for our Northerne Countries: (as Apples, Peares, Cheries, Filberds, red and white Plummes, Damsons, and Bulles,) for we meddle not with Apricockes nor Peaches, nor scarcely with Quinces, which will not like in our cold parts, vnlesse they be helped with some reflex of Sunne, or other like meanes, nor with bushes, bearing berries, as Barberies, Goose-berries, or Grosers, Raspe berries, and such like, though the Barbery be wholesome, and the tree may be made great: doe require (as all other trees doe) a blacke, fat, mellow, cleane and well tempered soyle, wherein they may gather plenty of good sap. Some thinke the Hasell would haue a chanily rocke, and the sallow, and eller a waterish marish. The soile is made better by deluing, and other meanes, being well melted, and the wildnesse of the earth and weedes (for euery thing subiect to man, and seruing his vse (not well ordered, is by nature sub- Kinds of trees. Soyle.

iect to the curſe,) is killed by froſts and drought, by fallowing and laying on heapes, and if it be wild earth, with burning.

Barren earth, If your ground be barren (for ſome are forced to make an Orchard of barren ground) make a pit three quarters deepe, and two yards wide, and round in ſuch places, where you would ſet your trees, and fill the ſame with fat, pure, and mellow earth, one whole foot higher then your Soile, and therein ſet your Plant. For who is able to manure an whole Orchard plot, if it be barren? But if you determine to manure the whole ſite, this is your way: digge a trench halfe a yard deepe, all along the lower (if there be a lower) ſide of your Orchard plot, caſting vp all the earth on the inner ſide, and fill the ſame with good ſhort, hot, & tender muck, and make ſuch another Trench, and fill the ſame as the firſt, and ſo the third, and ſo through out your ground. And by this meanes your plot ſhall be fertile for your life. But be ſure you ſet your trees, neither in dung nor barren earth.

Plaine. Your ground muſt be plaine, that it may receiue, and keepe moyſture, not onely the raine falling thereon, but alſo water caſt vpon it, or deſcending from higher ground by ſluices, Conduits, &c. For I account moiſture

Moyſt. in Summer very needfull in the ſoile of trees, & drought in Winter. Prouided, that the ground neither be boggy, nor the inundation be paſt 24. houres at any time, and but twice in the whole Summer, and ſo oft in the Winter. Therefore if your plot be in a Banke, or haue a deſcent, make Trenches by degrees, Allyes, Walkes, and ſuch like, ſo as the Water may be ſtayed from paſſage. And if too much water be any hinderance to your walks (for dry walkes doe well become an Orchard, and an Orchard them:) raiſe your walkes with earth firſt, and

then

then with ſtones, as bigge as Walnuts: and laſtly, with grauell. In Summer you need not doubt too much water from heauen, either to hurt the health of your body, or of your trees. And if ouerflowing moleſt you after one day, auoid it then by deepe trenching.

Some for this purpoſe dig the ſoile of their Orchard to receiue moiſture, which I cannot approue: for the roots with digging are oftentimes hurt, and eſpecially being digged by ſome vnskilfull ſeruant: For the Gardiner cannot doe all himſelfe. And moreouer, the roots of Apples & Peares being laid neere day, with the heate of the Sun, will put forth ſuckers, which are a great hinderance, and ſometimes with euill guiding, the deſtruction of trees, vnleſſe the deluing be very ſhallow, and the ground laid very leuell againe. Cherries and Plummes without deluing, will hardly or neuer (after twenty yeares) be kept from ſuch ſuckers, nor aſpes.

Graſſe alſo is thought needfull for moiſture, ſo you let it not touch the roots of your trees: for it will breed moſſe, and the boall of your tree neere the earth would haue the comfort of the Sunne and Ayre. Graſſe.

Some take their ground to be too moiſt when it is not ſo, by reaſon of waters ſtanding thereon, for except in foure marſhes, ſprings, and continuall ouerflowings, no earth can be too moyſt. Sandy & fat earth will auoid all water falling by receit. Indeed a ſtiffe clay will not receiue the water, and therefore if it be graſſie or plaine, eſpecially hollow, the water will abide, and it will ſeeme waterish, when the fault is in the want of manuring, and other good dreſſing.

This plainneſſe which we require, had need be naturall, becauſe to force an vneuen ground will deſtroy the fatneſſe. For euery ſoile hath his cruſt next day wherein

trees and herbes put their roots, and whence they draw their ſap, which is the beſt of the ſoile, and made fertile with heat and cold, moiſture and drought, and vnder which by reaſon of the want of the ſaid temper ture, by the ſaid foure qualities, no tree nor herbe (in a manner) will or can put root. As may be ſeene if in digging your ground, you take the weeds of moſt growth: as graſſe or docks, (which will grow though they lie vpon the earth bare) yet bury them vnder the cruſt, and they will ſurely dye and periſh, & become manure to your ground. This cruſt is not paſt 15. or 18 inches deepe in good ground, in other grounds leſſe. Hereby appeares the fault of forced plaines, viz. your cruſt in the lower parts, is couered with the cruſt of the higher parts, and both with worſe earth: your heights hauing the cruſt taken away, are become meerely barren: ſo that either you muſt force a new cruſt, or haue an euill ſoile. And be ſure you levell, before you plant, leſt you be forced to remoue, or hurt your plants by digging, and caſting amongſt their roots. Your ground muſt be cleered as much as you may of ſtones, and grauell, walls, hedges, buſhes, & other weeds.

Naturally plaine.

Cruſt of the earth.

Chap. 3.
Of the Site.

THere is no difference, that I find betwixt the neceſſity of a good ſoile, and a good ſite of an Orchard. For a good ſoile (as is before deſcribed, cannot want a good ſite, and if it do, the fruit cannot be good, and a good ſite will much mend an euill ſoile. The beſt ſite is in low grounds, (and if you can) neere vnto a Riuer. High grounds are not naturally fat. And

Low and neere a Riuer.

And if they haue any fatneſſe by mans hand, the very deſcent in time doth waſh it away. It is with grounds in this caſe as it is with men in a common wealth. Much will haue more: and once poore, ſeldome or neuer rich. The raine will ſcind, and waſh, and the wind will blow fatneſſe from the heights to the hollowes, where it will abide, and fatten the earth though it were barren before.

Hence it is, that we haue ſeldome any plaine grounds, and low, barren: and as ſeldome any heights naturally fertill. It is vnſpeakeable, what fatneſſe is brought to low grounds by inundations of waters. Neither did I euer know any barren ground in a low plaine by a Riuer ſide. The goodneſſe of the ſoile in *Howle* or *Hollowdernes*, in *Yorkſhire*, is well knowne to all that know the Riuer *Humber*, and the huge bulkes of their Cattell there. By eſtimation of them that haue ſeene the low grounds in *Holland* and *Zealand*, they farre ſurpaſſe the moſt Countries in *Europe* for fruitfulneſſe, and only becauſe they lie ſo low. The world cannot compare with *Ægypt*, for fertility, ſo farre as *Nilus* doth ouer flow his bankes. So that a fitter place cannot be choſen for an Orchard, then a low plaine by a riuer ſide. For beſides the fatneſſe which the water brings, if any cloudy miſt or raine be ſtirring, it commonly falls downe to, and followes the courſe of the Riuer. And where ſee we greater trees of bulke and bough, then ſtanding on or neere the waters ſide? If you aske why the plaines in *Holderns*, and ſuch countries are deſtitute of woods? I anſwer that men and cattell (that haue put trees thence, from out of Plaines to void corners) are better then trees. Neither are thoſe places without trees. Our old fathers can tell vs, how woods are decaied, and people in the roome th

Pſal 1 3. Ezec. 17 8. Reuel 39.17.

Mr. Mark.

multiplied. I haue ſtood ſomwhat long in this poynt, becauſe ſome do condemne a moiſt ſoile for fruit-trees.

Winds. Chap. 13.

A low ground is good to auoide the danger of winds, both for ſhaking downe your vnripe fruite. Trees the moſt (that I know) being loaden with wood, for want of proyning, and growing high, by the vnskilfulneſſe of the Arboriſt, muſt needes be in continuall danger of the South-weſt, Weſt, and North weſt winds, eſpecially in *September* and *March*, when the aire is moſt temperate from extreme heat, and cold, which are deadly enemies to great winds. Wherefore chuſe your ground low Or if you be forced to plant in a higher ground, let high and ſtrong wals, houſes, and trees, as wall-nuts, plane trees, Okes, and Aſhes, placed in good order, be your fence for winds.

The ſucken of your dwelling houſe, deſcending into your orchard, if it be cleanly conueyed, is good.

Sunne.

The Sunne, in ſome ſort, is the life of the world. It maketh proud growth, and ripens kindly, and ſpeedily, according to the golden tearme: *Annus fructificat, non tellus*. Therefore in the countries, neerer approching the Zodiake, the Sunnes habitation, they haue better, and ſooner ripe fruite, then we that dwell in theſe frozen parts.

Trees againſt a wall.

This prouoketh moſt of our great Arboriſts, to plant Apricockes, Cherries and Peaches, by a wall, and with tackes, and other meanes to ſpread them vpon, and faſten them to a wall, to haue the benefit of the immoderate reflexe of the Sunne, which is commendable, for the hauing of faire, good & ſoone ripe fruit. But let them know it is more hurtfull to their trees then the benefit they reape therby: as not ſuffering a tree to liue the tenth part of his age. It helpes Gardners to worke, for firſt the wall

wall hinders the roots, becauſe into a dry and hard wall of earth or ſtone a tree will not, nor cannot put any root to profit, but eſpecially it ſtops the paſſage of ſap, whereby the barke is wounded, & the wood, & diſeaſes grow, ſo that the tree becomes ſhort of life. For as in the body of a man, the leaning or lying on ſome member, wherby the courſe of bloud is ſtopt, makes that member as it were dead for the time, till the bloud returne to his courſe, and I thinke, if that ſtopping ſhould continue any time, the member would periſh for want of bloud (for the life is in the bloud) and ſo endanger the body: ſo the ſap is the life of the tree, as the bloud is to mans body: neither doth the tree in winter (as is ſuppoſed) want his ſap, no more then mans body his bloud, which in winter, and time of ſleep draws inward. So that the dead time of winter, to a tree, is but a night of reſt: for the tree at all times, euen in winter is nouriſhed with ſap, & groweth as well as mans body. The chilling cold may well ſome little time ſtay, or hinder the proud courſe of the ſap, but ſo little & ſo ſhort a time, that in calme & mild ſeaſon, euen in the depth of winter, if you marke it, you may eaſily perceiue, the ſap to put out, and your trees to increaſe their buds, which were formed in the ſummer before, & may eaſily be diſcerned: for leaues fall not off, til they be thruſt off, with the knots or buds, wherupon it comes to paſſe that trees cannot beare fruit plentifully two yeares together, and make themſelues ready to bloſſome againſt the ſeaſonableneſſe of the next Spring.

And if any froſt be ſo extreme, that it ſtay the ſap too much, or too long, then it kils the forward fruit in the bud, and ſometimes the tender leaues and twigs, but not the tree. Wherefore, to returne, it is perillous to ſtop the ſap. And where, or when, did you euer ſee a great tree

packt

packt on a wall? Nay, who did euer know a tree ſo vnkindly ſplat, come to age? I haue heard of ſome, that out of their imaginary cunning, haue planted ſuch trees, on the North ſide of the wall, to auoide drought, but the heate of the Sunne is as comfortable (which they ſhould haue regarded) as the drought is hurtfull. And although water is a ſoueraigne remedy againſt drought, yet want of Sun is no way to be helped. Wherefore to conclude this Chapter, let your ground lie ſo, that it may haue the benefit of the South, and Weſt Sun, and ſo low and cloſe, that it may haue moyſture, and increaſe his fatneſſe (for trees are the greateſt ſuckers & pillers of earth, and (as much as may be) free from great winds.

Chap. 4.
Of the quantity.

IT wou'd be remembred what a benefit riſeth, not onely to euery particular owner of an Orchard, but alſo to the common wealth, by fruit, as ſhall be ſhewed in the 16. Chapter (God willing) whereupon muſt needes follow: the greater the Orchard is (being good and well kept) the better it is, for of good things, being equally good, the biggeſt is the beſt. And if it ſhall appeare, that no ground a man occupieth (no, not the corne field) yeeldeth more gaine to the purſe, and houſe keeping, (not to ſpeake of the vnſpeakeable pleaſure) quantity for quantity, than a good Orchard (beſides the coſt in planting, and dreſſing an orchard, is not ſo much by farre, as the labour and feeding of your corne-fields, nor for durance of time, comparable, beſides the certainty of the on before the

Orchard as good as a corn-field.

the other) I ſee not how any labour, or coſt in this kind, can be idly or waſtfully beſtowed, or thought too much. And what other things is a vineyard, in thoſe countries where vines doe thriue, than a large Orchard of trees bearing fruit? Or what difference is there in the iuice of the Grape, and our Cyder & Perry, but the goodnes of the ſoile & clime where they grow? which maketh the one more ripe, & ſo more pleaſant then the other. What ſoeuer can be ſaid for the benefit riſing from an orchard, that makes for the largeneſſe of the Orchards bounds. And (me thinkes) they do prepoſterouſly, that beſtow more coſt and labours, and more ground in and vpon a garden than vpon an orchard, whence they reape and may reape both more pleaſure and more profit, by infinite degrees. And further, that a Garden neuer ſo freſh, and faire, and well kept, cannot continue without both renewing of the earth and the hearbs often, in the ſhort and ordinary age of a man: whereas your Orchard well kept ſhall dure diuers hundred yeares, as ſhall be ſhewed chap. 14. In a large orchard there is much labour ſaued, in fencing, and otherwiſe: for three little orchards, or few trees, being, in a manner, all out-ſides, are ſo blaſted and dangered, and, commonly in keeping neglected, and require a great fence; whereas in a great Orchard, trees are a mutuall fence one to another, and the keeping is regarded, and leſſe fencing ſerues ſixe acres together, than three in ſeuerall incloſures.

Compared with a vinyard.

Compared with a garden.

Now what quantity of ground is meeteſt for an Orchard can no man preſcribe, but that muſt be left to euery mans ſeuerall iudgement, to be meaſured according to his ability and will, for other neceſſaries beſides fruite muſt be had, and ſome are more delighted with orchard then others.

What quantity of ground.

Let

Want is no hinderance.

Let no man hauing a fit plot plead pouerty in this cafe, for an orchard once planted will maintaine it ſelfe, and yeeld infinite profit beſides. And I am perſwaded, that if men did know the right and beſt way of planting, dreſſing, and keeping trees, and felt the profit and pleaſure thereof, both they that haue no orchards would haue them, & they that haue orchards, would haue them larger, yea fruit-trees in their hedges, as in *Worceſter-ſhire*, &c. And I think, that the want of planting, is a great loſſe to our common-wealth, & in particular, to the owners of Lord-ſhips, which Land-lords themſelues might eaſily amend, by granting longer terme, and better aſſurance to their tenants, who haue taken vp this Prouerbe, *Botch and ſit, Build and flit*: for who will build or plant for an other mans profit? Or the Parliament might enioyne euery occupier of grounds to plant and maineraine for ſo many acres of fruitfull ground, ſo many ſeuerall trees or kinds of trees for fruit. Thus much for quantity.

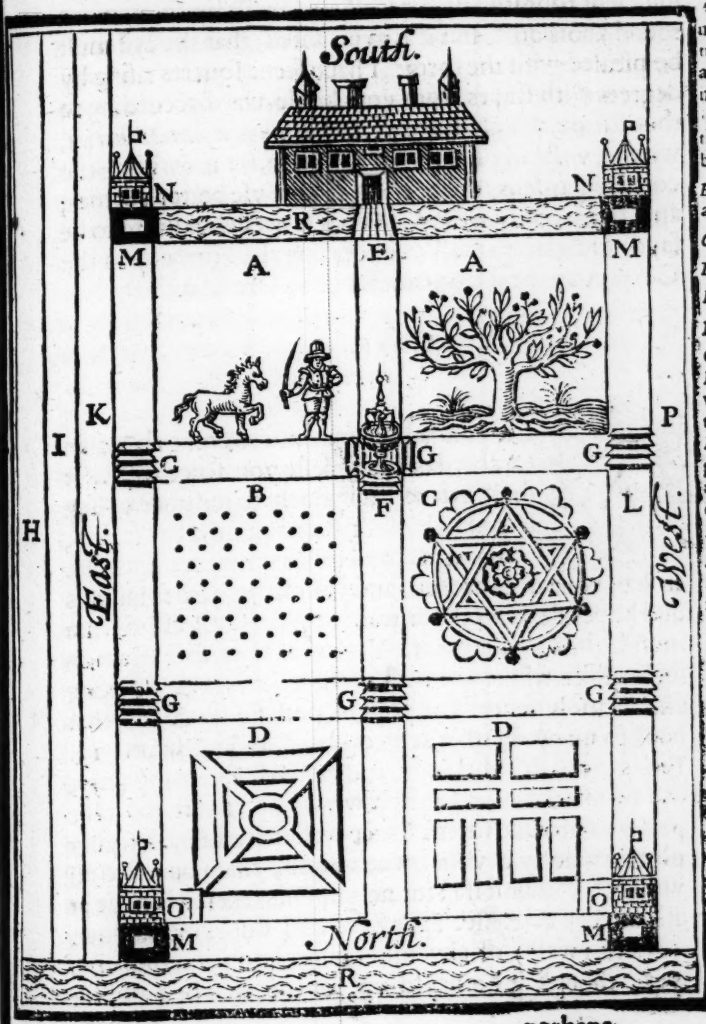
How Land-lords by their Tenants may make flourſhing Orchards in *England*.

Chap. 5.

Of the forme.

THe goodneſſe of the ſoile, and ſite, are neceſſary to the wel being of an orchard ſimply, but the forme is ſo farre neceſſary, as the owner ſhall thinke meete, for that kind of forme where with euery particular man is delighted, we leaue it to himſelfe, *Suum cuique pulchrum*. The forme that men like in generall is a ſquare, for although roundneſſe be *forma perfectiſſima*, yet that principle is good where neceſſity by art doth not force ſome other forme. If within one large ſquare the Gardner ſhall make one round Labyrinth or Maze with ſome kind of Berries, it will grace your forme, ſo there be ſufficient

The vſuall forme is a ſquare.



1 All these squares must bee set with trees, the Gardens and other ornaments must stand in spaces betwixt the trees, & in the borders & fences.

B Trees 20. yards asunder.

C. Garden Knots.

D Kitchen garden.

E. Bridge.

F. Conduit.

G Staires.

H. Walkes set with great wood thicke.

I. Walkes set with great wood round about your Orchard.

K. The out fence.

L. The out fence set with stone-fruite.

M Mount To force earth for a mount, or such like set it round with quicke, and lay boughes of trees strangely intermingled tops inward, with the earth in the midle.

N. Still-house.

O. Good standing for Bees, if you haue an house.

P. If the riuer run by your doore, & vnder your mount, it will be pleasant,

perhaps

ſufficient roomth left for walkes, ſo will foure or more round knots do. For it is to be noted, that the eye muſt be pleaſed with the forme. I haue ſeene ſquares riſing by degrees with ſtayes from your houſe-ward, according to this forme which I haue, *Craſſa quod aiunt Minerua*, with an vnſteady hand, rough hewen, for in forming the country gardens, the better ſort may vſe better formes, and more coſtly worke. What is needefull more to be ſayd, I referre that all (concerning the Forme,) to the Chapter 17 of the ornaments of an Orchard.

Chap. 6.
Of Fences.

Effects of euill fencing.

ALL your labour paſt and to come about an Orchard is loſt vnleſſe you fence well. It ſhall grieue you much to ſee your young ſets rubd looſe at the rootes, the barke pild, the boughes and twigs cropt, your fruite ſtolne, your trees broken, and your many yeares labours and hopes deſtroyed, for want of fences. A chiefe care muſt be had in this point. You muſt therefore plant in ſuch a ſoile, where you may prouide a conuenient, ſtrong and ſeemely fence. For you can poſſeſſe no goods, that haue ſo many enemies as an orchard, looke Chapter 13. Fruits are ſo delightſome, and deſired of ſo many (nay, in a manner of all) and yet few will be at coſt and take paines to prouide them. Fence well therefore, let your plot be wholly in your owne power, that you make all your fence your ſelfe: for neighbours fencing is none at all, or very careleſſe. Take heed of a doore or window, (yea of a wall) of any other mans into your orchard: yea, though it be nayld vp, or the wall be high, for perhaps

Let the fence be your owne.

perhaps they will proue theeues.

All Fences commonly are made of Earth, Stone, Bricke, Wood, or both earth and wood. Dry wall of earth, and dry Ditches, are the worſt fences ſaue pales or railes, and doe waſte the ſooneſt, vnleſſe they be well copt with gloue and morter, whereon at *Mighill-tide* it will be good to ſow Wall-flowers, commonly called Bee-flowers, or winter Gilly-flowers. becauſe they will grow (though amongſt ſtones) and abide the ſtrongeſt froſt and drought, continually greene and flowring euen in Winter, and haue a pleaſant ſmell, and are timely, (that is, they will floure the firſt and laſt of flowers) and are good for Bees. And your earthen wall is good for Bees dry and warme. But theſe fences are both vnſeemly, euill to repaire, and onely for need, where ſtone or wood cannot be had. Whoſoeuer makes ſuch Walles, muſt not pill the ground in the Orchard, for getting earth, nor make any pits or hallowes, which are both vnſeemly and vnprofitable. Old dry earth mixt with ſand is beſt for theſe. This kind of wall will ſoone decay, by reaſon of the trees which grow neere it, for the roots and boales of great trees, will increaſe, vndermine, and ouerturne ſuch walles, though they were of ſtone, as is apparant by Aſhes, Rountrees, Burt-trees, and ſuch like, carried in the chat, or berry, by birds into ſtone-walles. Kinds of fences, earthen walles.

Fences of dead-wood, as pales, will not laſt, neither will railes either laſt or make good fence. Pale and Raile.

Stone walles (where ſtone may be had) are the beſt of this ſort, both for fencing, laſting, and ſhrouding of your young trees. But about this muſt you beſtow much paines and more coſt, to haue them handſome, high and durable. Stone walls.

But

Quicke wood and Moates.

But of all other (in mine owne opinion) Quickwood, and Moats or Ditches of water, where the ground is leuell, is the beſt fence. In vnequall grounds, which will not keepe water, there a double ditch may be caſt, made ſtreight and leuel on the top, two yards broad for a faire walke, fiue or ſixe foot higher then the ſoyle, with a gutter on either ſide, two yards wide, and foure foot deepe ſet with out, with three or foure cheſſe of Thorns, and within with Cherry, Plumme, Damſon, Bullys, Filbirds, (for I loue theſe trees better for their fruit, and as well for their forme, as priuit) for you may make them take any forme. And in euery corner (and middle if you will) a mount would be raiſed, whereabout the wood may claſpe, powdered with wood-binde: which wil make with dreſſing a faire, pleſant, profitable, & ſure fence. But you muſt be ſure that your quicke thornes either grow wholly, or that there be a ſupply betime, either with planting new, or plaſhing the old where need is. And aſſure your ſelfe, that neither wood, ſtone, earth, nor water, can make ſo ſtrong a fence, as this after ſeuen yeares growth.

Moates.

Moates, Fiſh-ponds, and (eſpecially at one ſide a Riuer) within and without your fence, will afford you fiſh, fence, and moyſture to your trees, and pleaſure alſo, if they be ſo great and deepe that you may haue Swans, & other water birds, good for deuouring of vermine, and boat for many good vſes.

It ſhall hardly auaile you to make any fence for your Orchard, if you be a niggard of your fruit. For as liberality will ſaue it beſt from noyſome neighbours, liberality I ſay is the beſt fence, ſo Iuſtice muſt reſtraine rioters. Thus when your ground is tempered, ſquared, and fenced, it is time to prouide for planting.

CHAP.

Chap. 7.
Of Sets.

THere is not one point (in my opinion) about an Orchard more to be regarded, than the choyce getting and ſetting of good plants, either for readineſſe of hauing good fruite, or for continuall laſting. For whoſoeuer ſhall faile in the choyce of good Sets, or in getting, or gathering, or ſetting his plants, ſhall neuer haue a good or laſting Orchard. And I take want of skill in this faculty to be a chiefe hinderance to the moſt Orchards, and to many for hauing of Orchards at all.

Some for readineſſe vſe ſlips, which ſeldome take roote: and if they doe take, they cannot laſt, both becauſe their roote hauing a maine wound will in ſhort time decay the body of the tree: and beſides that rootes being ſo weakely put, are ſoone nipt with drought or froſt. I could neuer ſee (lightly) any ſlip but of apples onely ſet for trees. Slips.

A Bur-knot kindly taken from an Apple-tree, is much better and ſurer. You muſt cut him cloſe at the roote ende, an handfull vnder the knot. (Some vſe in Summer about *Lammas* to circumciſe him, and put earth to the knots with hay roaps, and in winter cut him off and ſet him, but this is curioſity, needleſſe, and danger with remouing, and drought,) and cut away all his twigs ſaue one, the moſt principall, which in ſetting you muſt leaue aboue the earth, burying his trunk in the cruſt of the earth for his root. It matters not much what part of the bough the twig growes out of. If it grow out of Bur-knot.

or neere the roote end, ſome ſay ſuch an Apple will haue no coare nor kirnell. Or if it pleaſe the Plantor, he may let his bough be crooked, and leaue out his top end, one foote or ſomewhat more, wherein will be good grafting, if either you like not, or doubt the fruite of the bough (for commonly your bur-knots are ſummer fruit) or if you thinke he will not, couer his wound ſafely.

Vſuall Sets. The moſt vſuall kind of ſets, is plants with rootes growing of kirnels of Apples, Peares, and Crabbes, or ſtones of Cherries, Plummes, &c. Remoued out of a Nurſery, Wood or other Orchard, into, and ſet in your Orchard in their due places. I grant this kind to be better than either of the former, by much, as more ſure and more durable. Herein you muſt note, that in ſets ſo remoued, you get all the roots you can, and without bruſing of any; I vtterly diſlike the opinion of thoſe great Maine rootes cut. Gardners, that following their Bookes would haue the maine rootes cut away, for tops cannot growe without rootes. And becauſe none can get all the rootes, and remouall is an hinderance, you may not leaue on all tops, Stow ſets remoued. when you ſet them: For there is a proportion betwixt the top and root of a tree, euen in the number (at leaſt) in the growth. If the roots be many, they will bring you many tops, if they be not hindred. And if you vſe to ſtow or top your tree too much or too low, and leaue no iſſue, or little for ſap, (as is to be ſeene in your hedges) it will hinder the growth of rootes and boale, becauſe ſuch a kind of ſtowing is a kind of ſmothering, or choaking the ſap. Great wood, as Oke, Elme, Aſh, &c. being continually kept downe with ſheeres, knife, axe, &c. neither boale nor roote will thriue, but as an hedge or buſh. If you intend to graffe in your Set, you may cut him cloſer with a greater wound, and neerer the earth, within a

foote

foote or two, becauſe the graft or grafts will couer his wound. If you like his fruite, and would haue him to be a tree of himſelfe, be not ſo bold: this I can tell you, that though you do cut his top cloſe, and leaue nothing but his bulke, becauſe his rootes are few, if he be (but little) bigger than your thumbe (as I wiſh all plants remoued to be) he will ſafely recouer wound within ſeuen yeares; by good guidance that is: If the next time of dreſſing immediarly aboue his vppermoſt ſprig, you cut him off ſlope cleanely, ſo that the ſprigge ſtand on the backe ſide, (and if you can Northward, that the wound may haue the benefit of Sunne) at the vpper ende of the wound: and let that ſprigge onely be the boale. And take this for a generall rule; Euery young plant, if he thriue, will recouer any wound aboue the earth, by good dreſſing, although it be to the one halfe, and to his very heart. This ſhort cutting at the remoue, ſaues your plants from Wind, and neede the leſſe or no ſtaking. I commend not Lying or Leaning of trees againſt holds or ſtayres; for it breedes obſtruction of ſap and wounds incureable. All remouing of trees as great as your arme, or aboue, is dangerous: though ſometime ſome ſuch will grow, but not continue long: Becauſe they be tainted with deadly wounds, either in the roote or top. (And a tree once throughly tainted is neuer good) And though they get ſome hold in the earth with ſome leſſer taw, or tawes, which giue ſome nouriſhment to the body of the tree: yet the heart being tainted, he will hardly euer thriue; which you may eaſily diſcerne by the blackenceſſe of the boughes at the heart, when you dreſſe your trees. Alſo, when he is ſet with moe tops than the rootes can nouriſh, the tops decaying, blacken the boughes, and the boughs the armes,

Generall rule.

Tying of trees.

Generall rule.

Signes of diſeaſes, Chap 13.

and ſo they boale at the very heart. Or this taint in the remouall, if it kill not preſently, but after ſome ſhort time, it may be diſcerned by blackneſſe or yellowneſſe in the barke, and a ſmall hungred leafe. Or if your remoued plant put forth leaues the next and ſecond ſummer, and little or few ſpraies, it is a great ſigne of a taint, and next yeares death. I haue knowne a tree tainted in ſetting, yet grow, & beare bloſſomes for diuers yeares: and yet for want of ſtrength could neuer ſhape his fruit.

Suckers good ſets.

Next vnto this, or rather equall with theſe plants, are ſuckers growing out of the roots of great trees, which cherries and plums do ſeldome or neuer want: and being taken kindly with their roots, will make very good ſets. And you may helpe them much by enlarging their rootes with the taws of the tree, whence you take them. They are of two ſorts: Either growing from the very roor of the tree: and here you muſt be carefull, not to hurt your tree when you gather them, by ripping amongſt the rootes, and that you take them cleane away: for theſe are a great and continuall annoyance to the growth of your tree: and they will hardly be cleanſed. Secondly, or they do ariſe from ſome taw: and theſe may be taken without danger, with long and good rootes, and will ſoone become trees of ſtrength.

A running Plant.

There is another way, which I haue not throughly proued, to get not onely plants for graffing, but ſets to remaine for trees, which I call a *Running Plant*: the manner of it is this: Take a roote or kirnell, and put it into the middle of your plot, and the ſecond yeare in the ſpring, geld his top, if he haue one principall (as commonly by nature they haue) and let him put forth onely foure Cyons toward the foure corners of the orchard, as neere the earth as you can. If he put not foure, (which

(which is rare) ſtay his top till he haue put ſo many. When you haue ſuch foure, cut the ſtocke aſlope, as is aforeſayd in this chapter, hard aboue the vtter moſt ſprig, & keepe thoſe foure without Cyons cleane and ſtraight, till you haue them a yard and a halfe, at leaſt, or two yards long. Then the next ſpring in graffing time, lay downe thoſe foure ſprayes, towards the foure corners of your Orchard, with their tops in an heape of pure and good earth, and raiſed as high as the roote of your Cyon (for ſap will not deſcend) and a ſod to keepe them downe, leauing nine or twelue inches of the top to looke vpward. In that hill he will put rootes, and his top new Cyons, which you muſt ſpread as before, and ſo from hill to hill till he ſpread the compaſſe of your ground, or as farre as you liſt. If in bending, the Cyons cracke, the matter is ſmall, cleanſe the ground and he will recouer. Euery bended bough will put forth branches, and become trees. If this plant be of a burre knot, there is no doubt. I haue proued it in one branch my ſelfe: and I know at *Wilton* in *Cleeue-land* a Peare-tree of a great bulke and age, blowne cloſe to the earth, hath put at euery knot rootes into the earth, and from roote to top, a great number of mighty armes or trees, filling a great roomth, like many trees, or a little Orchard. Much better may it be done by Art in a leſſe tree. And I could not miſſe this kind, ſaue that the time will be long before it come to perfection.

Many vſe to buy ſets already grafted, which is not the beſt way: for firſt, All remoues are dangerous: Againe, there is danger in the carriage: Thirdly, it is a coſtly courſe of planting: Fourthly, euery Gardner is not truſty to ſell you good fruite: Fiftly, you know not which is beſt, which is worſt, and ſo may take moſt care about Sets bought.

your worſt trees. Laſtly, this way keepes you from practiſe, and ſo from experience, in ſo good, Gentlemanly, Scholerlike, and profitable a faculty.

The beſt ſets. The onely beſt way (in my opinion) to haue ſure and laſting ſets, is neuer to remoue: for euery remoue is an hinderance, if not a dangerous hurt or deadly taint. This is the way. The plot for me being layd, and the plot appointed where you will plant euery ſet in your orchard, digge the roomth, where your ſets ſhall ſtand, a yard compaſſe, and make the earth mellow and cleane, and mingle it with a few coale-aſhes, to auoide wormes: and immediately after the firſt change of the Moone, in the latter end of *February*, the earth being a freſh turn'd ouer, put in euery ſuch roomth three or foure kirnels of Apples or Peares, of the beſt: euery kirnell in an hole made with your finger, finger deepe, a foote diſtant one from another: and that day moneth following, as many moe, (leſt ſome of the former miſſe) in the ſame compaſſe; but not in the ſame holes. Hence (God willing) ſhall you haue rootes enough. If they all, or diuers of them come vp, you may draw (but not digge) vp (nor put downe) at your pleaſure, the next *Nouember*. How many ſoeuer you take away, to giue or beſtow elſewhere, be ſure to leaue two of the proudeſt. And when in your 2. and 3. yeare you Graffe, if you graffe then at all, leaue the one of thoſe two vngraffed, leſt in graffing the other you faile: For I find by tryall, that after firſt or ſecond graffing in the ſame ſtocke, being miſt (for who hits all) the third miſſe puts your ſtocke in deadly danger, for want of iſſue of ſap. Yea, though you hit in graffing, yet may your graffes with winde or otherwiſe be broken downe. If your graffes or graffe proſper, you haue your deſire, in a plant vnremoued, without

Vnremoued how.

without taint, and the fruite at your owne choyce, and ſo you may (ſome little earth being remooued) pull, but not digge vp the other Plant or Plants in that roomth. If your grffe or ſtocke, or both periſh, you haue another in the ſame place, of better ſtrength to worke vpon. For thriuing without ſnub he will ouer-lay your grafred ſtocke much. And it is hardly poſſible, o miſſe in grafting ſo often, if your Gardiner be worth his name.

Sets vngrafted beſt of all.

It ſhall not be amiſſe (as I iudge it) if your Kirnels be of choyce fruite, and that you ſee them come forward proudly in their body, and beare a faire and broad leafe in colour, tending to a greeniſh yellow (which argues pleaſant and great fruit) to try ſome of them vngraffed: for although it be a long time ere this come to beare fruit, ten or twelue yeares, or moe; and at their firſt bearing, the fruit will not ſeeme to be like his owne kind: yet am I aſſured, vpon tryall, before twenty yeares growth, ſuch trees will increaſe the bigneſſe and goodneſſe of their fruite, and come perfectly to their owne kind. Trees (like other breeding creatures) as they grow in yeares, bignes and ſtrength, ſo they mend their fruit. Husbands and Houſwiues find this true by experience, in the rearing of their yong ſtore. More then this, there is no tree like this for ſoundnes and dureable laſt, if his keeping and dreſſing be anſwerable. I grant, the readieſt way to come ſoone to fruit is graffing: becauſe in a manner, all your graffes are taken of fruit bearing trees.

Time of remouing.

Now when you haue made choiſe of your ſets to remoue, the ground being ready, the beſt time is, immediatly after the fall of the leafe, in, or about the change of the Moone, when the ſap is moſt quiet: for then the ſap is in turning: for it makes no ſtay, but in the *extremi-*

Generall rule. ty of drought or cold. At any time in winter, may you transplant trees so you put no ice nor snow to the root of your plant in the setting: and therefore open, calme and moist weather is best. To remoue, the leafe being ready to fall and not fallen, or buds apparantly put forth in a moist warme season, for need, sometime may do well: but the safest is to walke in the plaine trode n path.

Some hold opinion that it is best remouing before the fall of the leafe, and I heare it commonly practised in the South by our best arborists, the leafe not fallen: and they giue the reason to be, that the descending of the sap will make speedy rootes. But marke the reasons following and I thinke you shall find no soundnesse, either in that position or practise, at least in the reason.

1. I say, it is dangerous to remoue when the sap is not quiet, for euery remoue giues a maime checke to the stirring sap, by staying the course therof in the body of your plant: as may appeare in trees remoued any time in summer, they commonly dye, nay hardly shall you saue the life of the most young and tender plant of any kinde of wood (scarcely herbes) if you remoue them in the pride of sap. For proud sap vniuersally staied by remoual, euer hinders; often taints and so presently, or in very short time kils. Sap is like bloud in mans body, in which is the life, *Cap.3.p.9.* If the blood vniuersally be cold, life is excluded; so is sap tainted by vntimely remoual. A stay by drought, or cold, is not so dangerous (though dangerous if it be extreme) becauſe more naturall.

2. The sap neuer descends, as men suppose, but is consollidated & transubstantiated into the substance of the tree, and passeth (alwayes aboue the earth) vpward, not onely betwixt the barke and the wood, but also into and in both body & barke, though not so plentifully, as may appeare

appeare by a tree budding, nay fructifying two or three yeares, after he be circumciſed, at the very roote, like a riuer that inlargeth his channell by a continuall deſcent.

3 I cannot perceiue what time they would haue the ſap to deſcend. At *Maſommer* in a biting drought it ſtaies, but deſcends not, for immediatly vpon moiſture it makes ſecond ſhoots, at (or before rather) *Michaeltide*, when it ſhapens his buds for next yeares fruit. If at the fall of leafe, I grant, about that time is the greareſt ſtand, but no deſcent, of ſap, which begins ſomwhat before the leafe fall, but not long, therfore at that time muſt be the beſt remouing, not by reaſon of deſcent, but ſtay of ſap.

4. The ſap in this courſe hath his profitable and apparant effects, as the growth of the tree, couering of wounds, putting of buds, &c. Whereupon it follows, if the ſap deſcend, it muſt needs haue ſome effect to ſhew it.

5. Laſtly, boughs plaſht and laid lower then the roote, dye for want of ſap deſcending, except where it is forced by the maine ſtreame of the ſap, as in top boughs hanging like water in pipes, or except the plaſht bough lying on the ground put rootes of his owne, yea vnder boughs which we commonly call water boughs, can ſcarcely get ſap to liue, yea in time dye, becauſe the ſap doth preſſe ſo violently vpward, and therefore the faireſt ſhootes and fruits are alwayes in the top.

Obiect. If you ſay that many ſo remoued thriue, I ſay that ſomewhat before the fall of the leafe (but not much) is the ſtand, for the fall & the ſtand are not at one inſtant, before the ſtand is dangerous. But to returne. Remoue ſoone.

The ſooner in winter you remoue your ſets, the better; the latter the worſe: For it is very perillous if a ſtrong drought take your Sets before they haue made good their rooting. A Plant ſet at the fall, ſhall gaine (in a manner)

a manner) a whole yeeres growth of that which is ſet in the Spring after.

The manner of ſetting.

I vſe in the ſetting to be ſure, that the earth be mouldy, (and ſomewhat moiſt) that it may runne among the ſmall tangles without ſtraining or bruiſing: and as I fill in earth to his root, I ſhake the Set eaſily to and fro, to make the earth ſettle the better to his roots: and withall eaſily with my foot I put in the earth cloſe; for ayre is noyſome, and will follow concauities. Some preſcribe Oates to be put in with the earth. I could like it, if I could know any reaſon thereof: and they vſe to ſet their Plant with the ſame ſide toward the Sunne: but this conceit is like the other. For firſt I would haue euery tree to ſtand ſo free from ſhade, that not onely the root (which therefore you muſt keepe bare from graſſe) but body, boughes, and branches, and euery ſpray, may haue the benefit of Sunne. And what hurt, if that part of the tree, that before was ſhadowed, be now made partaker of the heat of the Sunne? In turning of Bees, I know it is hurtfull, becauſe it changeth their entrance, paſſage, and whole worke: But not ſo in Trees.

Set in the cruſt.

Set as deepe as you can, ſo that in any wiſe you goe not beneath the cruſt. Looke Chap. 2.

Moyſture good.

We ſpeake in the ſecond Chapter of moyſture in generall: but now eſpecially hauing put your remoued plant into the earth, powre on water (of a puddle were good) by diſtilling preſently, and ſo euery weeke twice in ſtrong drought, ſo long as the earth will drinke, and refuſe by ouerflowing. For moiſture mollifies, and both giues leaue to the roots to ſpread, and makes the earth yeeld ſap and nouriſhment, with plenty & facility. Nurſes (they ſay) giue moſt & beſt milke after warme drinks.

If

If your ground be ſuch that it will keepe no moiſture at the root of your plant, ſuch plant ſhall neuer like, or but for a time. There is nothing more hurtfull for young trees then piercing drought. I haue known trees of good ſtature after they haue beene of diuers yeeres growth, & thriue well for a good time, periſh for want of water, and very many by reaſon of taints in ſetting.

It is meet your ſets and grafts be fenced, till they be as big as your arme, for feare of annoyances. Many waies may ſets receiue dammages, after they be ſet, whether grafted or vngrafted. For although we ſuppoſe, that no noyſome beaſt, or other thing muſt haue acceſſe among your trees: yet by caſualty, a Dog, Cat, or ſuch like, or your ſelfe, or negligent friend bearing you company, or a ſhrewd boy, may tread or fall vpon a young and tender plant or graft. To auoid theſe and many ſuch chances, you muſt ſtake them round a pretty diſtance from the ſet, neither ſo neere, nor ſo thicke, but that it may haue the benefit of Sun, raine, and ayre. Your ſtakes (ſmall or great) would be ſo ſurely put, or driuen into the earth, that they breake not, if any thing happen to leane vpon them, elſe may the fall be more hurtfull, then the want of the fence. Let not you ſtakes ſhelter any weeds about your ſets, for want of Sunne is a great hinderance. Let them ſtand ſo farre off, that your grafts ſpreading receiue no hurt, either by rubbing on them, or of any other thing paſſing by. If your ſtocke be long, and high Grafted (which I muſt diſcommend (except in need) becauſe there the ſap is weake, and they are ſubiect to ſtrong wind, and the lighting of birds) tie eaſily with a ſoft liſt three or foure prickes vnder the clay, and let their tops ſtand aboue the grafts, to auoid the lighting of Crowes, Pyes, &c. vpon your grafts. If you ſticke

Grafts muſt be fenced.

ſome

ſome ſharpe thornes at the roots of your ſtakes, they will make hurtfull things keepe off the better. Other better fences for your grafts I know none. And thus much for ſets and ſetting.

Chap. 8.
Of the diſtance of Trees.

I Know not to what end you ſhould prouide good ground, well fenced, & plant good ſets; and when your trees ſhould come to profit, haue all your labours loſt, for want of due regard to the diſtance of placing your trees. I haue ſeene many trees ſtand ſo thicke, that one could not thriue for the throng of his neighbours. If you doe marke it, you ſhall ſee the tops of trees rubd off, their ſides galled like a galled horſes backe, and many trees haue more ſtumps then boughes, and moſt trees no well thriuing, but ſhort, ſtumpiſh, and euill thriuing boughes: like a Corne field ouer-ſeeded, or a towne ouer peopled, or a paſture ouerlaid, which the Gardiner muſt either let grow, or leaue the tree very few boughes to beare fruit. Hence ſmall thrift, galls, wounds, diſeales, and ſhort life to the trees: and while they liue greene, little, hard, worme-eaten, and euill thriuing fruit ariſe, to the diſcomfort of the owners.

Hurts of too neere planting.

Remedy.

To preuent which diſcommodity, one of the beſt remedies is, the ſufficient and fit diſtance of trees. Therefore at the ſetting of your plants you muſt haue ſuch reſpect, that the diſtance of them be ſuch, that euery tree be not annoyance, but an helpe to his fellowes: for trees (as all other things of the ſame kind) ſhould ſhroud, and not

not hurt one another. And assure your selfe that euery touch of trees (as well vnder as aboue the earth) is hurtfull. Therefore this must be a generall rule in this Art: That no tree in an Orchard well ordered, nor bough, nor Cyon, drop vpon, or touch his fellowes. Let no man thinke this vnpossible, but looke in the eleuenth Chapter of dressing of trees. If they touch, the winde will cause a forcible rub. Young twigs are tender, if boughes or armes touch or rub, if they are strong, they make great galls. No kind of touch therefore in trees can be good.

Generall rule.

All touches hurtfull.

Now it is to be considered what distance amongst sets is requisite, and that must be gathered from the compasse and roomth, that each tree by probability will take and fill. And herein I am of a contrary opinion to all them, which practise or teach the planting of trees, that euer yet I knew, read, or heard of. For the common space betweene tree and tree is ten foot: if twenty foot, it is thought very much. But I suppose twenty yards distance is small enough betwixt tree and tree, or rather too too little. For the distance must needs be as far as two trees are well able to ouer spread, and fill, so they touch not by one yard at least. Now I am assured, and I know one Apple-tree, set of a slip *finger-great*, in the space of 20 yeares, (which I account a very small part of a trees age, as is shewed Chapter 14.) hath spred his boughes eleuen or twelue yards compasse, that is, fiue or sixe yards on euery side. Hence I gather, that in forty or fifty yeares (which yet is but a small time of his age) a tree in good soile, well liking, by good dressing (for that is much auaileable to this purpose) will spread double at the least, viz. twelue yards on a side, which being added to twelue alotted to his fellow, make twenty and foure yards, and so

The best distance of trees.

ſo farre diſtant muſt euery tree ſtand from another And looke how farre a tree ſpreads his boughes aboue, ſo far doth he put his roots vnder the earth, or rather further, if there be no ſtop, nor let by walls, trees, rocks, barren earth, and ſuch like: for an huge bulk, and ſtrong armes, maſſie boughes, many branches, and infinite twigs, require wide ſpreading roots. The top hath the vaſt aire to ſpread his boughs in, high and low, this way and that way: but the roots are kept in the cruſt of the earth, they may not goe downward, nor vpward out of the earth, which is their element, no more then the Fiſh out of the water, Camelion out of the Aire, nor Salamander out the fire. Therefore they muſt needs ſpread farre vnder the earth. And I dare well ſay, if nature would giue leaue to man by Art, to dreſſe the roots of trees, to take away the tawes and tangles, that lap and fret and grow ſuperfluouſly and diſorderly, (for euery thing *ſublunary* is curſed for mans ſake) the tops aboue being anſwerably dreſſed, we ſhould haue trees of wouderfull greatnes, and infinite durance. And I perſwade my ſelfe that this might be done ſometimes in Winter, to trees ſtanding in faire plaines and kindly earth, with ſmall or no danger at all. So that I conclude, that twenty foure yards are the leaſt ſpace that Art can allot for trees to ſtand diſtant one from another.

The parts of a tree.

If you aske me what vſe ſhall be made of that waſte ground betwixt tree and tree? I anſwer: If you pleaſe to plant ſome tree or trees in that middle ſpace, you may, and as your trees grow contigious, great and thick, you may at your pleaſure take vp thoſe laſt trees. And this I take to be the cheefe cauſe, why the moſt trees ſtand ſo thicke. For men not knowing (or not regarding) this ſecret of needfull diſtance, and louing fruit of trees planted

Waſte ground in an Orchard.

planted to their handes, thinke much to pull vpp any, though they pine one another. If you or your heires or ſucceſſors would take vp ſome great trees (paſt ſetting) where they ſtand too thicke, be ſure you doe it about *Midſummer*, and leaue no maine roots. I deſtinate this ſpace of foure and twenty yards, for trees of age & ſtature. More then this, you haue borders to be made for walkes, with Roſes, Berries, &c.

And chiefly conſider: that your Orchard, for the firſt twenty or thirty yeeres, will ſerue you for many Gardens, for Safron, Licoras, roots, and other herbs for profit, and flowers for pleaſure: ſo that no ground need be waſted if the Gardiner be skillfull and diligent. But be ſure you come not neere with ſuch deepe deluing the roots of your trees, whoſe compaſſe you may partly diſcerne, by the compaſſe of the tops, if your top be well ſpread. And vnder the droppings and ſhadow of your trees, be ſure no herbes will like. Let this be ſaid for the diſtance of Trees.

Chap. 9.
Of the placing of Trees.

THe placing of trees in an Orchard is well worth the regard: For although it muſt be granted, that any of our foreſaid trees (Chap. 2.) will like well in any part of your Orchard, being good and well dreſt earth: yet are not all Trees alike worthy of a good place. And therefore I wiſh that your Filbird, Plummes, Damſons, Buleſſe, and ſuch like, be vtterly remoued from the plaine ſoile of your Orchard into your fence: for there is not ſuch fertility and eaſeful growth,

as

as within: and there alſo they are more ſubiect, and can abide the blaſts of *Æolus*. The cherries and plummes being ripe in the hot time of Summer, and the reſt ſtanding onger, are not ſo ſoone ſhaken as your better fruit: neither if they ſuffer loſſe, is your loſſe ſo great. Beſides that, your fences and ditches will deuoure ſome of your fruit growing in or neere your hedges. And ſeeing the continuance of all theſe (except Nuts) is ſmall, the care of them ought to be the leſſe. And make no doubt, but the fences of a large Orchard will containe a ſufficient number of ſuch kind of Fruit-trees in the whole compaſſe. It is not materiall, but at your pleaſure, in the ſaid fences, you may either intermingle your ſeuerall kinds of fruit-trees, or ſet euery kind by himſelfe, which order doth very well become your better and greater fruit. Let therefore your Apples, Peares, and Quinches, poſſeſſe the ſoile of your Orchard, vnleſſe you be eſpecially affected to ſome of your other kinds: and of them let your greateſt Trees of growth ſtand furtheſt from Sunne, and your Quinches at the South ſide or end, and your Apples in the middle, ſo ſhall none be any hinderance to his fellowes. The Warden-tree, and Winter-Peare will challenge the preheminence for ſtature. Of your Apple-trees you ſhall finde difference in growth. A good Pippin will grow large, and a Coſtard-tree: ſtead them on the North ſide of your other Apples, thus being placed, the leaſt will giue Sun to the reſt, and the greateſt will ſhroud their fellowes. The fences and out-trees will guard all.

CHAP.

Chap. 10.
Of Grafting.

NOw are we come to the moſt curious point of our faculty: curious in conceit, but indeede as plaine and eaſie as the reſt, when it is plainely ſhewne, which we commonly call *Graffing*, or (after ſome) *Grafting*. I cannot *Etymologize*, nor ſhew the originall of the Word, except it come of *Graving* and *Carving*. Of Graving or Carving. Grafting what.



But the thing or matter is: The reforming of the fruits of one tree with the fruit of another, by an artificiall tranſplacing or tranſpoſing of a twigge, bud or leafe, commonly called a *Graft*) taken from one tree of the ſame, or ſome other kind, and placed or put to, or into another tree in one time and manner. A Graft.

Kinds of grafting.

Of this there be diuers kinds, but three or foure now eſpecially in vſe: to wit, Grafting, inciſing, packing on, grafting in the ſcutchion, or inoculating: whereof the chiefe and moſt vſuall, is called grafting (by the generall name, *Catahexocen*:) for it is the moſt knowne, ſureſt, readieſt, and plaineſt way to haue ſtore of good fruit.

Graft how.

It is thus wrought; You muſt with a fine, thin, ſtrong and ſharpe Saw, made and armed for that purpoſe, cut off a foot aboue the ground, or thereabouts, in a plaine without a knot, or as neere as you can without a knot (for ſome Stocks will be knotty) your Stocke, ſet, or plant, being ſurely ſtayed with your foot and legge, or otherwiſe ſtraight ouerthwart (for the Stocke may be crooked) and then plaine his wound ſmoothly with a ſharpe knife: that done, cleaue him cleanly in the middle with a cleauer, and a knocke or mall, and with a wedge of wood, Iron or Bone, two handfull long at leaſt, put into the middle of that clift, with the ſame knocke, make the wound gape a ſtraw bredth wide, into which you muſt put your Graffes.

A Graft what.

The graft is a top twig taken from ſome other Tree (for it is folly to put a graffe into his owne Stocke) beneath the vppermoſt (and ſometime in need the ſecond) knot, and with a ſharpe knife fitted in the knot (and ſome time out of the knot when need is) with ſhoulders an inch downeward, and ſo put into the ſtocke with ſome thruſting (but not ſtraining) barke to barke inward.

Eyes.

Let your graffe haue three or foure eyes, for readineſſe to put forth, and giue iſſue to the ſap. It is not amiſſe to cut off the top of your graffe, and leaue it but fiue or ſixe inches long, becauſe commonly you ſhall

ſee the tops of long graffes die. The reaſon is this. The ſap in graffing receiues a rebuke, and cannot worke ſo ſtrongly preſently, and your graffes receiue not ſap ſo readily, as the naturall branches. When your graffes are cleanely and cloſely put in, and your wedge puld out nimbly, for feare of putting your graffes out of frame, take well tempered morter, ſoundly wrought with chaffe or horſe-dung (for the dung of cattell will grow hard, and ſtraine your graffes) the quantity of a Gooſes egge, and diuide it iuſt, and therewithall, couer your ſtocke, laying the one halfe on the one ſide, and the other halfe on the other ſide of your graffes (for thruſting againſt your graffes) you moue them, and let both your hands thruſt at once, and alike, and let your clay be tender, to yeeld eaſily; and all, leſt you moue your graffes. Some vſe to couer the clift of the Stocke, vnder the clay with a piece of barke or leafe, ſome with a ſear-cloth of waxe and butter, which as they be not much needfull, ſo they hurt not, vnleſſe that by being buſie about them, you moue your graffes from their places. They vſe alſo moſſe tyed on aboue the clay with ſome bryer, wicker, or other bands. Theſe profit nothing. They all put the graffes in danger, with pulling and thruſting: for I hold this generall rule in graffing and planting: if your ſtocke and graffes take, and thriue (for ſome will take and not thriue, being tainted by ſome meanes in the planting or graffing) they will (without doubt) recouer their wounds ſafely and ſhortly. Generall rule.

The beſt time of graffing from the time of remouing your ſtocke is the next Spring, for that ſaues a ſecond wound, and a ſecond repulſe of ſap, if your ſtocke be of ſufficient bigneſſe to take a graffe from as big as your Time of graffing.

thumbe, to as big as an arme of a man. You may graffe leſſe (which I like) and bigger, which I like not ſo well. The beſt time of the yeere is in the laſt part of *February*, or in *March*, or beginning of *April*, when the Sunne with his heat begins to make the ſap ſtirre more rankely, about the change of Moone before you ſee any great apparancy of leafe or flowers, but onely knots and buds, and before they be proud, though it be ſooner. Cheries, Peares, Apricocks, Quinces, and Plummes would be gathered and grafted ſooner.

Gathering graffes.

The graffes may be gathered ſooner in *February*, or any time within a moneth, or two before you graffe, or vpon the ſame day (which I commend) If you get them any time before, for I haue knowne graffes gathered in *December*, and doe well, take heed of drought. I haue my ſelfe taken a burknot of a tree, & the ſame day when he was laid in the earth about mid *February*, gathered grafts and put in him, and one of thoſe graffes bore the third yeere after, and the fourth plentifully. Graffes of old trees would be gathered ſooner then of young trees, for they ſooner breake and bud If you keepe graffes in the earth, moiſture with the heat of the Sun will make them ſprout as faſt, as if they were growing on the tree. And therefore ſeeing keeping is dangerous, the ſureſt way (as I iudge) is to take them within a weeke of the time of your grafting.

Graffes of old trees.

The grafts would be taken not of the proudeſt twigs, for it may be your ſtocke is not anſwerable in ſtrength. And therefore (ſay I) the grafts brought from South to vs in the North, although they take and thriue (which is ſomewhat doubtfull, by reaſon of the difference of the Clime and carriage) yet ſhall they in time faſhion themſelues to our cold Northerne ſoile, in growth, taſte &c.

Where taken.

Not

Nor of the pooreſt, for want of ſtrength may make them vnready to receiue ſap (and who can tell but a poore graft is tainted) nor on the outſide of your tree, for there ſhould your tree ſpread but in the middeſt: for there you may be ſure your Tree is no whit hindered in his growth or forme. He will ſtill recouer inward, more then you would wiſh. If your clay clift in Summer with drought, looke well in the Chinkes for Emmits and Earewigs, for they are cunning and cloſe theeues. about grafts you ſhall finde them ſtirring in the morning and euening, and the rather in the moiſt weather. I haue had many young buds of Graffes, euen in the flouriſhing, eaten with Ants. Let this ſuffice for graffing, which is in the faculty counted the chiefe ſecret, and becauſe it is moſt vſuall it is beſt knowne. Emmits.

Graffes are not to be diſliked for growth, till they wither, pine, and die. Vſually before *Midſummer* they breake, if they liue. Some (but few) keeping proud and greene, will not put till the ſecond yeere, ſo is it to be thought of ſets.

The firſt ſhew of putting is no ſure ſigne of growth, it is but the ſap the graffe brought with him from his tree.

So ſoone as you ſee the graft put for growth, take away the clay, for then doth neither the ſtocke nor the graffe need it (put a little freſh well-tempered clay in the hole of the ſtocke) for the clay is now tender, and rather keepes moiſture then drought.

The other waies of changing the naturall fruit of Trees, are more cutious then profitable, and therefore I mind not to beſtow much labour or time about them, onely I ſhall make knowne what I haue proued, and what I doe thinke.

And firſt of inciſing, which is the cutting of the backe Inciſing.

of the boale, a rine or branch of a tree at ſome bending or knee, ſhoulderwiſe with two gaſhes, onely with a ſharpe knife to the wood: then take a wedge, the bignes of your graffe ſharpe ended, flat on the one ſide, agreeing with the tree, and round on the other ſide, and with that being thruſt in, raiſe your barke, then put in your graffe, faſhioned like your wedge iuſt: and laſtly couer your wound, and faſt it vp, and take heed of ſtraining. This will grow but to ſmall purpoſe, for it is weake hold, and lightly it will be vnder growth. Thus may you graft betwixt the barke and the tree of a great ſtocke that will not eaſily be clifted: But I haue tryed a better way for great trees, viz First, cut him off ſtraight, and cleanſe him with your knife, then cleaue him into foure quarters, equally with a ſtrong cleauer: then take for euery Clift two or three ſmall (but hard) wedges iuſt of the bigneſſe of your grafts, and with thoſe Wedges driuen in with an hammer open the foure clifts ſo wide (but no wider) that they may take your foure graffes, with thruſting not with ſtraining: and laſtly couer and clay it cloſely, and this is a ſure and good way of grafting: or thus, clift your ſtocke by his edges twice or thrice with your cleauer, and open him with your wedge in euery clift one by one, and put in your grafts, and then couer them. This may doe well.

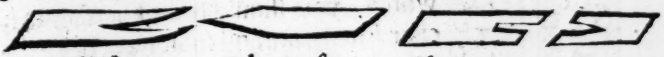
A great ſtocke.

Packing thus.

Packing on is, when you cut aſlope a twig of the ſame bigneſſe with your graft, either in or beſides the knot, two inches long, and make your graft agree iumpe with the Cyon, and gaſh your graft and your Cyon in the middeſt of the wound, length-way, a ſtraw breadth deepe, and thruſt the one into the other, wound to wound, ſap to ſap, barke to barke, then tie them cloſe and clay them. This may doe well. The faireſt graft I haue

haue in my little Orchard, which I haue planted, is thus packt on, and the branch whereon I put him, is in his plentifull roote.

To be ſhort in this point, cut your graft in any ſort or faſhion, two inches long, and ioyne him cleanly and cloſe to any other ſprig of any tree in the latter end of the time of grafting, when ſap is ſomewhat rife, and in all probability they will cloſe and thriue: thus



The ſprig. *The graft.* *The twig.* *The graft.*

Or any other faſhion you thinke good.

Inoculating is an eye or bud, taken barke and all from one tree, and placed in the roome of another eie or bud of another, cut both of one compaſſe, and there bound. This muſt be done in Summer, when the ſap is proud. Inoculating.

Much like vnto this is that, they call grafting in the ſcutchion. they differ thus: That here you muſt take an eie with his leafe, or (in mine opinion) a bud with his leaues. (Note that an eie is for a Cyon, a bud is for flowers and fruit,) and place them on another tree, in a plaine (for ſo they teach) the place or barke where you muſt ſet it, muſt be thus cut with a ſharpe knife, and the barke raiſed with a wedge, and then the eie or budde put in and ſo bound vp. I cannot denie but ſuch may grow. And your bud if he take will flowre and beare fruit that yeere: as ſome grafts & ſets alſo, being ſet for bloomes. If theſe two kinds thriue, they reforme but a ſpray, and an vndergrowth. Thus you may place Roſes on Thornes, and Cherries on Apples, and ſuch like. Many write much more of grafting, but to ſmall purpoſe. Whom we leaue to themſelues, & their followers; & ending this ſecret we come in the next Grafting in the ſcutchion.



Chapter to a point of knowledge moſt requiſite in an Arboriſt, as well for all other woods as for an Orchard.

Chap. 11.
Of the right dreſſing of Trees.

Neceſſity of dreſſing trees.

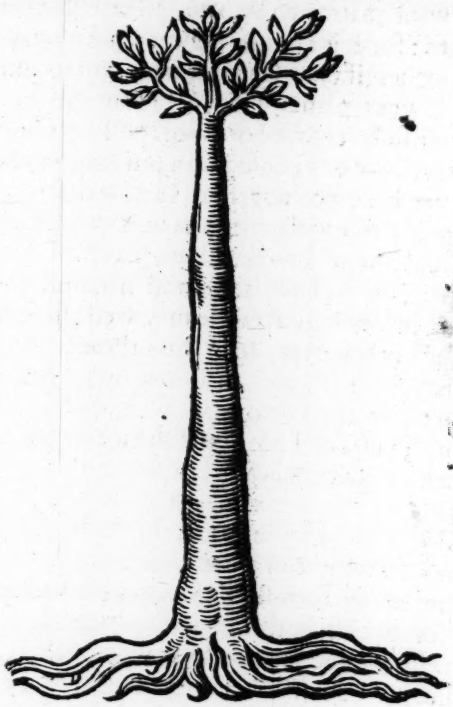
IF all theſe things aforeſaid were indeed performed, as we haue ſhewed them in words, you ſhould haue a perfect Orchard in nature and ſubſtance, begunne to your hand: And yet are all theſe things nothing, if you want that skill to keepe and dreſſe your trees. Such is the condition of all earthly things, whereby a man receiueth profit or pleaſure, that they degenerate preſently without good ordering. Man himſelfe left to himſelfe, growes from his heauenly and ſpirituall generation, and becommeth beaſtly, yea deuilliſh to his owne kind, vnleſſe he be regenerate No maruell then, if Trees make their ſhootes, and put their ſpraies diſorderly. And truly (if I were worthy to iudge) there is not a miſchiefe that breedeth greater and more generall harme to all the Orchard (eſpecially if they be of any continuance) that euer I ſaw, (I will not except three) then the want of the skilfull dreſſing of trees. It is a common and vnskilfull opinion, and ſaying, Let all grow, and they will beare more fruit: and if you lop away ſuperfluous boughes, they ſay, what a pitty is this? How many apples would theſe haue borne? not conſidering there may arile hurt to your Orchard, aſwell (nay rather) by abundance, as by want of wood. ſound and thriuing plant in a good ſoile, will euer yeeld too much wood, and diſorderly, but neuer too little. So that a skilfull and painfull Arboriſt, need

Generall rule.

neuer

neuer want matter to effect a plentifull and well dreſt Orchard: for it is an eaſie matter to take away ſuperfluous boughes (if your Gardner haue skill to know them) whereof your plants will yeeld abundance, and skill will leaue ſufficient well ordered. Allages both by rule and experience doe conſent to a pruining and lopping of trees: yet haue not any that I know deſcribed vnto vs (except in darke and generall words) what or which are thoſe ſuperfluous boughes, which we muſt take away, and that is the chiefe and moſt needfull point to be knowne in lopping. And we may well aſſure our ſelues, (as in all other Arts, ſo in this) there is a vantage and dexterity, by skill, and an habite by practiſe out of experience, in the performance hereof for the profit of mankind; yet doe I not know (let me ſpeake it with the patience of our cunning Arboriſts) any thing within the compaſſe of humane affaires ſo neceſſary, and ſo little regarded, not onely in Orchards, but alſo in all other timber trees, where or whatſoeuer.

How many forreſts and woods? wherein you ſhall haue for one liuely thriuing tree, foure (nay ſometimes 24.) euill thriuing, rotten and dying trees, euen while they liue. And inſtead of trees thouſands of buſhes and ſhrubs. What rottenneſſe? what hollowneſſe? what dead armes? withered tops? curtailed trunkes? what loads of moſſes? drouping boughes? and dying branches ſhall you ſee euery where? And thoſe that like in this ſort are in a manner all vnprofitable boughes, canked armes, crooked, little and ſhort boales: what an infinite number of buſhes, ſhrubs, and skrogs of hazels, thornes, and other profitable wood, which might be brought by dreſſing to become great and goodly Trees. Conſider now the cauſe: The leſſer wood hath beene ſpoiled with Timber wood euill dreſt.



The cauſe of burls in woode.

Imagine the roote to be ſpread farre wider.

with careleſſe, vnskilfull, and vntimely ſtowing, and much alſo of the great wood. The greater trees at the firſt riſing haue filled and ouer-loaden themſelues with a number of waſtfull boughes and ſuckers, which haue not onely drawne the ſap from the boale, but alſo haue made it knotty, and themſelues and the boale moſſie for want of dreſſing, whereas if in the prime of growth they

they had bene taken away cloſe, all but one top (according to this patterne) and cleane by the bulke, the ſtrength of all the ſap ſhould haue gone to the bulke, and ſo he would haue recouered and couered his knots, and haue put forth a faire, long and ſtreight body (as you ſee) for timber profitable, huge great of bulke, and of infinite laſt. Dreſſe timber trees how.

If all timber trees were ſuch (will ſome ſay) how ſhould we haue crooked wood for wheeles, coorbs,&c.

Anſw. Dreſſe all you can, and there will be enough crooked for thoſe vſes.

More than this, in moſt places, they grow ſo thicke, that neither themſelues, nor earth, nor any thing vnder neere them can thriue, nor Sunne, nor raine, nor aire can doe them, nor any thing neere or vnder them any profit or comfort.

I ſee a number of Hags, where out of one roote you ſhall ſee three or foure (nay more) ſuch as mens vnskilfull greedineſſe, who deſiring many haue none good) pretty Okes or Aſhes, ſtraight and tall, becauſe the roote of the firſt ſhoote giues ſap amaine: but if one onely of them might bee ſuffered to grow, and that well and cleanely pruned, all to his very top, what a tree ſhould we haue in time? And we ſee by thoſe rootes continually and plentifully ſpringing, notwithſtanding ſo deadly wounded. What a commodity ſhould ariſe to the owner, and the Common-wealth, if wood were cheriſhed, and orderly dreſſed.

The waſt boughes cloſely and skilfully taken away, would giue vs ſtore of fences and fewell, and the bulke of the tree in time would grow of huge length and bignes. But here (me thinkes) I heare an vnskilfull Arboriſt ſay, that trees haue their ſeuerall formes, euen by nature, Profit of trees dreſſed.

ture, the Peare, the Holly, the Aſpe, &c. grow long in bulke with few and little armes, the Oke by nature broad, and ſuch like. All this I graunt: but grant me alſo, that there is a profitable end, and vſe of euery tree, from which if it decline (though by nature) yet man by art may (nay muſt) correct it. Now other end of trees I neuer could learne, than good timber, fruit much and good, and pleaſure. Vſes phyſicall hinder nothing a good forme.

The end of Trees.

Neither let any man euer ſo much as thinke, that it vnprobable, much leſſe vnpoſſible, to reforme any tree of what kind ſoeuer. For (beleeue me) I haue tried it, I can bring any tree (beginning by time) to any forme. The peare and holly may be made to ſpread, and the Oke to cloſe.

Trees will take any forme.

But why do I wander out of the compaſſe of mine Orchard, into the Forreſts and Woods? Neither yet am I from my purpoſe, if boales of timber trees ſtand in need of all the ſap, to make them great and ſtraight (for ſtrong growth and dreſſing makes ſtrong trees) then it muſt needes be profitable for fruit (a thing more immediately ſeruing a mans need) to haue all the ſap his roote can yeeld: for as timber ſound, great and long, is *the good of timber trees*, and therefore they beare no fruite of worth: ſo fruit, good, ſound, pleaſant, great and much, is the end of fruit-trees. That gardner therefore ſhall performe his duty skilfully and faithfully, which ſhall ſo dreſſe his trees, that they may beare ſuch and ſuch ſtore of fruit, which he ſhall neuer do (dare vndertake) vnleſſe he keepe this order in dreſſing his trees.

The end of Trees.

A fruit-tree ſo ſtanding, that there need none other end of dreſſing but fruit (not ornaments for walkes, nor delight to ſuch as would pleaſe their eye onely, and yet the

How to dreſſe a fruit-tree.

the best for me can not but both adorne and delight) must be parted from within two foote, or thereabouts, of the earth, so high to giue liberty to dresse his roote, and no higher, for drinking vp the sap that should feede his fruit, for the boale will be first, and best serued and fed, because he is next the roote, and of greatest waxe and substance, and that makes him longest of life, into two, three, or foure armes, as your stocke or graffes yeelde twigs, and euery arme into two or more branches, and euery branch into his seuerall Cyons, still spreading by equall degrees, so that his lowest spray be hardly without the reach of a mans hand, and his highest be not past two yards higher, rarely (especially in the middest) that no one twig touch his fellow. Let him spread as farre as he list without his maister-bough, or top equally. And when any bough doth grow sadder and fall lower, than his fellowes (as they will with weight of fruite) ease him the next spring of his superfluous twigs, and he will rise: when any bough or spray shall amount aboue the rest; either snub his top with a nip betwixt your finger and your thumbe, or with a sharpe knife, and take him cleane away, and so you may vse any Cyon you would reforme, and as your tree shall grow in stature and strength, so let him rise with his tops but slowly, and orderly, especially in the middest, and equally, and in bredth also, and follow him vpward with lopping his vnder growth and water boughes, keeping the same distance of two yards, but not aboue three in any wise, betwixt the lowest and the highest twigs.

1. Thus you shall haue well liking, cleane skind, healthfull, great, and long-lasting trees. Benefits of good dressing.

2. Thus shall your tree grow low, and safe from winds, for his top will be great, broad and weighty.

3. Thus

3. Thus growing broad, ſhall your trees beare much fruit (I dare ſay) one as much as ſixe of your common trees, and good without ſhadowing, dropping and fretting: for his boughes, branches, and twigs ſhalbe many, and thoſe are they (not the boale) which beare the fruit.

4. Thus ſhall your boale being little (not ſmall but low) by reaſon of his ſhortneſſe, take little, and yeeld much ſap to the fruit.

5. Thus your trees by reaſon of ſtrength in time of ſetting ſhall put forth more bloſſomes, and more fruite, being free from taints; for ſtrength is a great helpe to bring forth much and ſafely, whereas weakeneſſe failes in ſetting though the ſeaſon be calme.

Some vſe to bare trees rootes in Winter, to ſtay the ſetting til hotter ſeaſons, which I diſcommend, becauſe,

1. They hurt the rootes.

2. It ſtayes it nothing at al

3. Though it did, being ſmall, with vs in the North, they haue their part of our *Aprill* and *Mayes* froſts.

4. Hinderance cannot profit weake trees in ſetting.

5. They waſt much labour.

6. Thus ſhall your tree be eaſie to dreſſe, and without danger, either to the tree or the dreſſer.

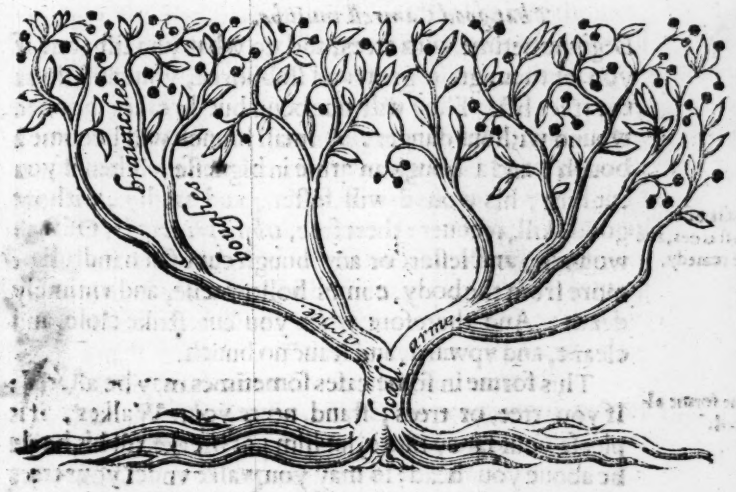
7. Thus may youſafely and eaſily gather your fruite without falling, bruiſing or breaking of Cyons.

This is the beſt forme of a fruit tree, which I haue here onely ſhadowed out for the better capacity of them that are led more with the eye, than the mind, craving pardon for the deformity, becauſe I am nothing skilfull either in painting or caruing.

Imagine that the paper makes but one ſide of the tree to appeare, the whole round compaſſe will giue leaue for many more armes, boughes, branches, and Cyons.

The

The perfect forme of a Fruit-tree.



If any thinke a tree cannot well be brought to this forme: *Experto crede Roberto*, I can ſhew diuers of them vnder twenty yeeres of age.

The fitteſt time of the Moone for proyning is as of grafting, when the ſap is ready to ſtirre (not proudly ſtirring) and ſo to couer the wound, and of the yeere, a moneth before (or at leaſt when) you graffe. Dreſſe Peares, Apricocks, Peaches, Cherries, and Bullys ſooner. And old trees before young plants, you may dreſſe at any time betwixt Leafe and Leafe. And note, where you take any thing away, the ſap the next Summer will be putting: be ſure therefore when he puts a bud in any place where you would not haue him, rub it off with your finger. Time beſt for proining.

And

Dreſſing betime.

And here you muſt remember the common homely Prouerbe:

Soone crookes the tree,
That good Camrell muſt be.

Beginne betime with trees, and do what you liſt: but if you let them grow great and ſtubborne, you muſt do as the trees liſt. They will not bend but breake, nor bee wound without danger. A ſmall branch will become a bough, and a bough an arme in bigneſſe. Then if you cut him, his wound will feſter, and hardly, without good skill, recouer: therefore, *Obſta principijs*. Of ſuch wounds, and leſſer, or any bough cut off a handfull or more from the body, comes hollowneſſe, and vntimely death. And therefore when you cut, ſtrike cloſe, and cleane, and vpward, and leaue no bunch.

Faults of euill dreſt trees, and the remedy.

The forme altered.

This forme in ſome caſes ſometimes may be altered: If your tree, or trees, ſtand neere your Walkes, if it pleaſe your fancy more, let him not breake, till his boale be aboue your head: ſo may you walke vnder your trees at your pleaſure. Or if you ſet your fruit-trees for your ſhades in your Groues, then I reſpect not the forme of the tree, but the comelineſſe of the walke.

Dreſſing of old trees.

All this hitherto ſpoken of dreſſing, muſt be vnderſtood of young plants, to be formed: it is meete ſomewhat be ſayd for the inſtruction of them that haue olde trees already formed, or rather deformed: for, *Malum non vitatur niſi cognitum*. The faults therefore of a diſordered tree, I find to be fiue:

Faults are fiue, and their remedies.

1. An vnprofitable boale.
2. Water-boughes.
3. Fretters.
4. Suckers: And,
5. One principall top.

Along

A long boale asketh much feeding, and the more he hath the more he deſires, and gets (as a drunken man drinke, or a couetious man wealth) and the leſſe remaines for the fruit, he puts his boughes into the aire, and makes them, the fruit, and it ſelfe more dangered with windes: for this I know no remedy, after that the tree is come to growth, once euill, neuer good. 1. Long oale. No remedy.

Water boughes, or vndergrowth, are ſuch boughes as grow low vnder others and are by them ouergrowne, ouerſhadowed, dropped on, and pinde for want of plenty of ſap, and by that meanes in time die: For the ſap preſſeth vpward; and it is like water in her courſe, where it findeth moſt iſſue, thither it floweth, leauing the other leſſer ſluces dry: euen as wealth to wealth, and much to more. Theſe ſo long as they beare, they beare leſſe, worſe, and fewer fruit, and wateriſh. 2. Water boughs.

The remedy is eaſie, if they be not growne greater then your arme. Lop them cloſe and cleane, and couer the middle of the wound, the next Summer when he is dry, with a ſalue made of tallow, tarre, and a very little pitch, good for the couering of any ſuch wound of a great tree: *vnleſſe* it be barke-pild, and then a ſear-cloth of freſh Butter, Hony, and Waxe, preſently (while the wound is greene) applyed, is a ſoueraigne remedy in Summer eſpecially. Some bind ſuch wounds with a thumbe rope of Hay, moiſt, and rub it with dung. Remedy. Barke-pild, and the remedy.

Fretters are, when as by the negligence of the Gardner, two or moe parts of the tree, or of diuers trees, as armes, boughes, branches, or twigs, grow ſo neere and cloſe together, that one of them by rubbing, doth wound another. This fault of all other ſhewes the want of skill or care (at leaſt) in the Arboriſt: for here the hurt is apparant, and the remedy eaſie, ſeene to betime: galls Fretters. Touching. Remedy.

and wounds incurable, but by taking away those members: for let them grow, and they will be worse and worse, & so kill themselues with ciuill strife for roomth, and danger the whole tree Auoide them betime therefore, as a common wealth doth bosome enemies.

Suckers. A Sucker is a long, proud, and disorderly Cyon, growing straight vp (for pride of sap makes proud, long, and straight growth) out of any lower parts of the tree, receiuing a great part of the sap, and bearing no fruit, till it haue tyrannized ouer the whole tree. These are like idle and great Drones amongst Bees; and proud and idle members in a common wealth.

Remedy. The remedy of this is, as of water-boughes, vnlesse he be growne greater then all the rest of the boughs, and then your Gardner (at your discretion) may leaue him for his boale, and take away all, or the most of the rest. If he be little, slip him, and set him, perhaps he will take: my faireſt Apple-tree was such a Slip.

One principall top or bough, and remedy. One or two principall top boughes are as euill, in a manner, as Suckers, they rise of the same cause, and receiue the same remedy: yet these are more tolerable, because these beare fruit, yea the best: but Suckers of long doe not beare.

Instruments for dressing. I know not how your tree should be faulty, if you reforme all your vices timely, and orderly. As these rules serue for dressing young trees and sets in the first planting: so may they well serue to helpe old trees, though not exactly to recouer them.

The Instruments fittest for all these purposes, are most commonly: For the great trees an handsome long, light Ladder of Firpoles, a little, nimble, and strong armed Saw, and sharpe. For lesse Trees, a little and sharpe Hatchet, a broad mouthed Chesel, strong and

and sharpe, with an hand-beetle, your strong and sharpe Cleeuer, with a knock, & (which is a most necessary Instrument amongst little trees) a great hafted and sharpe Knife or Whittle. And as needfull is a Stoole on the top of a Ladder of eight or moe rungs, with two backe-feet, whereon you may safely and easefully stand to graffe, to dresse, and to gather fruit thus formed: The feet may be fast wedged in: but the Ladder must hang loose with two bands of iron. And thus much of dressing trees for fruit, formerly to profit.



CHAP. 12.
Of Foyling.

THere is one thing yet very necessary for make your Orchard both better, and more lasting: Yea, so necessary, that without it your Orchard cannot last, nor prosper long, which is neglected generally both in precepts and in practise, viz. manuring with Foile: whereby it hapneth that when trees (amongst other euils) through want of fatnesse to feed them, become mossie, and in their growth are euill (or not) thriuing, it is either attributed to some wrong cause, as age (when indeed they are but young) or euill standing (stand they neuer so well) or such like, or else the cause is altogether vnknowne, and so not amended. Necessity of foiling.

Can there be deuised any way by nature, or art, sooner or soundlier to seeke out, and take away the heart and strength of earth, then by great trees? Such great bodies cannot be sustained without great store of sap. What li- Trees great suckers.

uing body haue you greater then of trees? The great Sea-monſters (whereof one came a land at *Teeſmouth* in *Yorkeſhire*, hard by vs, 18. yards in length, and neere as much in compaſſe) ſeeme hideous, huge, ſtrange, and monſtrous, becauſe they be indeed great: but eſpecially, becauſe they are ſeldome ſeene: But a tree liking, come to his growth and age, twice that length, and of a bulke neuer ſo great, beſides his other parts, is not admired, becauſe he is ſo commonly ſeene. And I doubt not, but if he were well regarded from his kirnell, by ſucceeding ages, to his full ſtrength, the moſt of them would double their meaſure. About fifty yeeres agoe I heard by credible and conſtant report, That in *Brooham* Parke in *Weſt more-land*, neere vnto *Penrith*, there lay a blowne Oake, whoſe trunke was ſo bigge, that two Horſe men being the one on the one ſide, and the other on the other ſide, they could not one ſee another: to which if you adde his armes, boughs, and roots, and conſider of his bigneſſe, what would he haue been, if preſerued to the vantage. Alſo I read in the Hiſtory of the *Weſt-Indians*, out of *Peter-Martyr*, that ſixteene men taking hands one with another, were not able to fathome one of thoſe trees about. Now Nature hauing giuen to ſuch a faculty by large and infinite roots, taws and tangles, to draw immediately his ſuſtenance from our common mother the Earth (which is like in this point to all other mothers that beare) hath alſo ordained that the tree ouer-loden with fruit, and wanting ſap to feed all ſhe hath brought forth, will waine all ſhe cannot feed, like a woman bringing forth moe children at once then ſhe hath teats. See you not how trees eſpecially, by kind being great, ſtanding ſo thicke and cloſe, that they cannot get plenty of ſap, pine away all the graſſe, weeds,

Great bodies.

weeds, lesser shrubs, and trees, yea and themselues also for want of vigor of sap? So that trees growing large, sucking the soile whereon they stand, continually, and amaine, and the foyzon of the earth that feeds them decaying (for what is there that wastes cotinually, that shall not haue end?) must either haue supply of sucken, or else leaue thriuing and growing. Some grounds will beare Corne while they be new, and no longer, because their crust is shallow, and not very good, and lying they scind and wash, and become barren. The ordinary Corne soiles continue not fertile, with following and foyling, and the best requires supply, euen for the little body of Corne. How then can we thinke that any ground (how good soeuer) can sustaine bodies of such greatnesse, and such great feeding, without great plenty of Sap arising from good earth? This is one of the chiefe causes, why so many of our Orchards in *England* are so euill thriuing when they come to growth, and our fruit so bad. Men are loth to bestow much ground, and desire much fruit, and will neither set their trees in sufficient compasse, nor yet feed them with manure. Therefore of necessity Orchards must be soiled.

Time fit for foyling.

The fittest time is, when your trees are growne great, and haue neere hand spread your earth, wanting new earth to sustaine them, which if they doe, they will seeke abroad for better earth, and shun that, which is barren (if they find better) as cattell euill pasturing. For nature hath taught euery creature to desire and seeke his owne good, and to auoid hurt. The best time of the yeere is at the Fall, that the Frost may bite and make it tender, and the Raine wash it into the roots. The Summer time is perillous if ye digge, because the sap flies amaine. The best kind of Soile is such as is fat, hot, and

Kind of soyle.

tender. Your earth muſt be but light opened, that the dung may goe in, and waſh away; and but ſhallow, leſt you hurt the roots: and in the Spring, cloſely and equally made plaine againe for feare of Suckers. I could wiſh, that after my trees haue fully poſſeſſed the ſoile of mine Orchard, that euery ſeuen yeeres at leaſt, the ſoile were beſpread with dung halfe a foot thicke at leaſt. Puddle water out of the dunghill powred on plentifully, will not onely moiſten but fatten eſpecially in *Iune* and *July*. If it be thicke and fat, and applied euery yeere, your Orchard ſhall need none other foiling. Your ground may lye ſo low at the Riuer ſide, that the floud ſtanding ſome daies and nights thereon, ſhall ſaue you all this labour of foiling.

Chap. 13.

Of Annoyances.



Chiefe helpe to make euery thing good, is to auoid the euils thereof: you ſhall neuer attaine to that good of your Orchard you looke for, vnleſſe you haue a Gardner, that can diſcerne the diſeaſes of your trees, and other annoyances of your Orchard, and find out the cauſes thereof, and know & apply fit remedies for the ſame. For be your ground, ſite, plants, and trees as you would wiſh, if they be waſted with hurtfull things, what haue you gained but your labour for your trauell? It is with an Orchard and euery tree, as with mans body. The beſt part of phyſicke for preſeruation of health, is to foreſee and cure diſeaſes.

Two kinds of euils in an Orchard.

All the diſeaſes of an Orchard are of two ſorts, either internall, or external. I call thoſe inward hurts which breed on and in particular trees.

1 Galles. 5 Barke bound.
2 Canker. 6 Barke pild.
3 Moſſe. 7 Wormes.
4 Weaknes in ſetting. 8 Deadly wounds.

Galles, Canker, Moſſe, weaknes, though they be di- Galls.
uers diſeaſes: yet (howſoeuer Authors thinke otherwiſe) they riſe all out of the ſame cauſe.

Galles we haue deſcribed with their cauſe and remedy, in the 11. Chapter vnder the name of fretters.

Canker is the conſumption of any part of the tree, Canker.
barke and wood, which alſo in the ſame place is decyphered vnder the title of water-boughes.

Moſſe is ſenſibly ſeene and knowne of all, the cauſe is Moſſe.
pointed out in the ſame Chapter, in the diſcourſe of timber-wood, and partly alſo the remedy: but for Moſſe adde this, that at any time in ſummer (the Spring is beſt) when the cauſe is remoued, with an Harecloth, immediatly after a ſhowre of raine, rub off your Moſſe, or with a peece of weed (if the Moſſe abound) formed like a great knife.

Weakneſſe in the ſetting of your fruit ſhall you finde Weakneſſe
there alſo in the ſame Chapter, and his remedy. All in ſetting.
theſe flow from the want of roomth in good ſoile, wrong planting, Chap. 7. and euill or no dreſſing.

Bark-bound (as I thinke) riſeth of the ſame cauſe, and Barke-
the beſt, & preſent remedy (the cauſes being taken away) bound.
is with your ſharpe knife in the Spring, length-way, to launch his bark throughout, on 3. or 4. ſides of his boale.

The diſeaſe called the Worme is thus diſcernd: The Worme.
barke will be hoald in diuers places like gall, the wood will die & dry, and you ſhall ſee eaſily the barke ſwell. It is verily to be thought, that therin is bred ſome worm I haue not yet thoroughly ſought it out, becauſe I was neuer

troubled therewithall: but onely haue ſeene ſuch trees in diuers places. I thinke it a worme rather, becauſe I ſee this diſeaſe in trees, bringing fruit of ſweet taſte, and the ſwelling ſhewes as much. The remedy (as I coniecture) is ſo ſoone as you perceiue the wound, the next Spring cut it out barke and all, and apply Cowes puſſe and vineger preſently, and ſo twice or thrice a weeke for a moneths ſpace: For I well perceiue, if you ſuffer it a ly time, it eates the tree or bough round, and ſo kils.

Remedy.

Since I firſt wrote this Treatiſe, I haue changed my mind concerning the diſeaſe called the worme, becauſe I read in the Hiſtory of the *Weſt-Indians*, that their trees are not troubled with the diſeaſe called the worme or canker, which ariſeth of a raw and euill concocted humor or ſap, Witneſſe *Plinie*, by reaſon their Country is more hot then ours, whereof I thinke the beſt remedy is (not diſallowing the former, conſidering that the worme may breed by ſuch an hurt or) warme ſtanding, ſound lopping and good dreſſing.

Barke pild.

Barke-pild you ſhall find with his remedy in the 11. Chapter.

Wounds.

Deadly wounds are when a mans Arboriſt wanting skill, cut off armes, boughes or branches an inch, or (as I ſee ſometimes) an handfull, or halfe a foot or more from the body: Theſe ſo cut cannot couer in any time with ſap, and therefore they die, and dying they periſh the heart, and ſo the tree becomes hollow, and with ſuch a deadly wound cannot liue long.

Remedy.

The remedy is, if you find him before he be periſhed, cut him cloſe, as in the 11. Chapter: if he be hoald, cut him cloſe, fill his wound, tho neuer ſo deepe, with morter well tempered & ſo cloſe at the top his wound with a Seare cloth doubled and nailed on, that no aire nor raine

raine approach his wound. If he be not very old, and detaining, he will recouer, and the hole being cloſed, his wound within ſhall not hurt him for many yeeres.

Hurts on your trees are chiefly Ants, Earewigs, and Caterpillars. Of Ants and Earewigs is ſaid Chap. 10. Let there be no ſwarme of Piſmires neere your tree-root, no not in your Orchard, turne them ouer in a ſhoſt, and powre in water, and you kill them. Hurts on trees. Ants, Earewigs, Caterpillars, and ſuch like wormes.

For Caterpillars, the vigilant Fruterer ſhall ſoone eſpy their lodging by their web, or the decay of leaues eaten round about them. And being teene, they are eaſily deſtroyed with your hand, or rather (if your tree may ſpare it) take ſprig and all (for the red peckled butter fly doth euer put them, being her ſparm, among the tender ſpraies for better feeding, eſpecially in drought, and tread them vnder your feet. I like nothing of ſmoke among my trees. Vnnaturall heates are nothing good for naturall trees. This for diſeaſes of particular trees.

Externall hurts are either things naturall or artificiall. Naturall things, externally hurting Orchards. Externall euils.

1 Beaſts.
1 Deere.
2 Goates.
3 Sheepe.
4 Hare.
5 Cony.
6 Cattell.
7 Horſe.

2 Birds.
1 Bulfinch.
2 Thruſh.
3 Blackbird.
4 Crow.
5 Pye.
&c.

The other things are,

1 Winds.
2 Cold.
3 Treſs.
4 Weeds.
5 Wormes.

6 Mowles.

6 Mowles.
7 Filth.
8 Poyſonfull ſmoke.

Externall wilfull euils are theſe.

1 Walls.
2 Trenches.
3 Other works noiſome done in or neere (your Orchard.
4 Euill Neighbours.
5 A careleſſe Maſter.
6 An vndiſcreet, negligent or no keeper.

See you here an whole Army of miſcheifes banded in troupes againſt the moſt fruitfull trees the earth beares? aſſailing your good labours. Good things haue moſt enemies.

Remedy. A skilfull Fructerer muſt put to his helping hand, and disband and put them to flight.

Deere, &c. For the firſt ranke of beaſts, beſides your out ſtrong fence, you muſt haue a faire and ſwift Greyhound, a ſtone-bow, gun, and if need require, an Apple with an hooke for a Deere, and an Hare-pipe for an Hare.

Birds. Your Cherries and other Berris when they be ripe, will draw all the Black-birds, Thruſhes, and Maw Pies to your Orchard. The Bul-finch is a deuourer of your Fruit in the bud, I haue had whole trees ſhald out with them in Winter-time.

Remedy. The beſt remedy here is a Stone bow, a Piece, eſpecially if you haue a Musket or Spar-hawke in Winter to make the Black-bird ſtoope into a buſh or hedge.

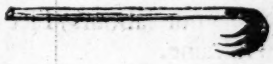
Other trees. The Gardner muſt cleanſe his foile of all other trees: but fruit-trees aforeſaid Chapter 2 for which it is ordained, and I would eſpeecially name Oakes, Elmes, Aſhes, and ſuch other great wood, but that I doubt it ſhould be taken as an admiſſion of leſſer trees: for I admit

of

of nothing to grow in mine Orchard but fruit and flowers. If ſap can hardly be good to feed our fruit-trees, why ſhould we allow of any other, eſpecially thoſe, that will becom their Maſters, & wrong them in their liuelyhood.

And although we admit without the fence of Wall-nuts in moſt plaine places, Trees middle-moſt, and aſhes or Okes, or Elmes vtmoſt, ſet in comely rowes equally diſtant with faire Allies twixt row and row to auoide the boiſterous blaſts of winds, and within them alſo others for Bees; yet wee admit none of theſe into your Orchard-plat: other remedy then this haue wee none againſt the nipping froſts. Winds. Froſts.

Weeds in a fertile ſoile (becauſe the generall curſe is ſo) till your Trees grow great, will be noyſome, and deforme your allies, walkes, beds, and ſquares, your vnder Gardners muſt labour to keepe all cleanly & handſome from them and all other filth with a Spade, weeding knives, rake with iron teeth: a skrapple of Iron thus formed. Weeds.



For Nettles and grcund-Iuy after a ſhowre.

When weeds, ſtraw, ſtickes, and all other ſcrapings are gathered together, burne them not, but bury them vnder your cruſt in any place of your Orchard, and they will dye and fatten your ground. Remedy.

Wormes and Moales open the earth, and let in aire to the roots of your trees, and deforme your ſquares and walkes, and feeding in the earth, being in number infinite, draw on barrenneſſe. Wormes Moales.

Wormes may eaſily be deſtroyed. Any Summer euening when it is darke, after a ſhowre with a candle, you may fill buſhels, but you muſt tred nimbly. & where Remedy.

you

you cannot come to catch them ſo; ſift the earth with coale aſhes an inch or two thicknes, and that is a plague to them, ſo is ſharpe grauell.

Moales will anger you, if your Gardner or ſome skilful Moale-catcher eaſe you not, eſpecially hauing made their fortreſſes among the roots of your trees: you muſt watch her wel with a Moal ſpare, at morne, noon, and night, when you ſee her vtmoſt hill, caſt a Trench betwixt her and her home (for ſhe hath a principall manſion to dwell and breed in about *Aprill*, which you may diſcerne by a principall hill, wherein you may catch her, if you trench it round and ſure, and watch well) or whereſoeuer you can diſcerne a ſingle paſſage (for ſuch ſhe hath) there trench, and watch, and haue her.

Wilfull annoyances muſt be preuented and auoided by the loue of the Maſter and Fruiterer, which they beare to their Orchard.

Wilfull annoyances.

Remedy.

Iuſtice and liberality will put away euill neighbours or euill neighbour-hood. And then if (God bleſſe and giue ſucceſſe to your labours) I ſee not what hurt your Orchard can ſuſtaine.

Chap. 14.

Of the age of Trees.

IT is to be conſidered: All this Treatiſe of trees tends to this end, that men may loue and plant Orchards, whereunto there cannot be a better inducement then that they know (or at leaſt be perſwaded) that all that benefit they ſhall reape thereby, whether of pleaſure or profit, ſhall not be for a day or a moneth, or one, or many (but many hundreth) yeeres. Of good things the greateſt, and moſt durable is alwaies the beſt. If therefore our of reaſon

reaſon grounded vpon experience, it be made (I thinke) manifeſt, but I am ſure probable, that a fruit-tree in ſuch a ſoile and ſite, as is deſcribed ſo planted and trimmed and kept, as is afore appointed and duely foiled, ſhall dure 1000. yeeres, why ſhould we not take paines, and be at two or three yeeres charges (for vnder ſeuen yeeres will an Orchard be perfected for the firſt planting, and in that time be brought to fruit) to reape ſuch a commodity and ſo long laſting. The age of trees.

Let no man thinke this to be ſtrange, but peruſe and conſider the reaſon. I haue Apple trees ſtanding in my little Orchard, which I haue knowne theſe forty yeeres, whoſe age before my time I cannot learne, it is beyond memory, tho I haue enquired of diuers aged men of 80. yeeres and vpwards: theſe trees although come into my poſſeſſion very euill ordered, miſhapen, and one of them wounded to his heart, and that deadly (for I know it will be his death) with a wound, wherein I might haue put my foot in the heart of his bulke (now it is leſſe) notwithſtanding, with that ſmall regard they haue had ſince, they ſo like, that I aſſure my ſelfe they are not come to their growth by more then 2. parts of 3. which I diſcerne not onely by their owne growth, but alſo by comparing them with the bulke of other trees. And I find them ſhort (at leaſt) by ſo many parts in bigneſſe, although I know thoſe other fruit-trees to haue beene much hindred in their ſtature by euill guiding. Herehence I gather thus. Gathered by reaſon out of experience.

If my trees be a hundred yeeres old, and yet want two hundred of their growth before they leaue encreaſing, which make three hundred, then we muſt needs reſolue, that this three hundred yeere are but the third part of a Trees life, becauſe (as all things liuing beſides) Parts of a liuelihood.

ſo

ſo trees muſt haue allowed them for their increaſe one third, another third for their ſtand, and a third part of time alſo for their decay. All which time of a Tree amounts to nine hundred yeeres, three hundred for increaſe, three hundred for his ſtand, whereof we haue the terme ſtature, and three hundred for his decay, and yet I thinke (for we muſt coniecture by comparing, becauſe no one man liueth to ſee the full age of trees) I am within the compaſſe of his age, ſuppoſing alwaies the foreſaid meanes of preſeruing his life. Conſider the age of other liuing creatures. The Horſe and moiled Oxe wrought to an vntimely death, yet double the time of their increaſe. A Dog likewiſe increaſeth three, ſtanns three at leaſt, and in as many (or rather moe) decayes.

Mans age. Euery liuing thing beſtowes the leaſt part of his age in his growth, and ſo muſt it needs be with trees. A man comes not to his full growth and ſtrength (by common eſtimation) before thirty yeeres, and ſome ſlender and cleane bodies, not till forty, ſo long alſo ſtands his ſtrength, & ſo long alſo muſt he haue allowed by courſe of nature to decay. Euer ſuppoſing that he be well kept with neceſſaries, and from and without ſtraines, bruiſes, and all other dominyring diſeaſes. I will not ſay vpon true report, that Phyſicke holds it poſſible, that a cleane body kept by theſe 3. Doctors, *Doctor Dyet*, *Doctor Quiet*, and *Doctor Merriman*, may liue neere a hundred yeeres. Neither will I here vrge the long yeeres of *Methuſhalah*, and thoſe men of that time. becauſe you will ſay, Mans dayes are ſhortned ſince the floud. But what hath ſhortned them? God for mans ſinnes: but by meanes, as want of knowledge, euill gouernment, ryot, gluttony, drunkeneſſe, and (to be ſhort) the encreaſe of the

the curſe, our ſinnes increaſing in an iron and wicked age.

Now if a man, whoſe body is nothing (in a manner) but tender rottenneſſe, whoſe courſe of life cannot by any meanes, by counſell, reſtraint of Lawes, or punishment, nor hope of praiſe, profet, or eturnall glory, be kept within any bounds, who is degenerate cleane from his naturall feeding, to effeminate nicenſſe, and cloying his body with exceſſe of meate, drinke, ſleepe &c. and to whom nothing is ſo pleaſant and ſo much deſired as the cauſes of his owne death, as idlenceſſe, luſt, &c. may liue to that age: I ſee not but a tree of a ſolide ſubſtance, not damnified by heate or cold, capable of, and ſubiect to any kinde of ordering or dreſſing that a man ſhall apply vnto him, feeding naturally, as from the beginning disburdened of all ſuperfluities, eaſed of, and of his owne accord auoiding the cauſes that may annoy him, ſhould double the life of a man, more then twice told; and yet naturall phyloſophy, and the vniuerſall conſent of all Hiſtories tell vs, that many other liuing creatures farre exceed man in the length of yeeres: As the Hart and the Rauen. Thus reporteth that famous *Roterodam* out of *Heſiodus*, and many other Hiſtoriographers. The teſtimony of *Cicero* in his booke *De Senectute*, is weighty to this purpoſe: that we muſt *in poſteras ætates ſerere arbores*, which can haue none other ſence: but that our fruit-trees whereof he ſpeakes, can endure for many ages.

What elſe are trees in compariſon with the earth: but as haires to the body of a man? And it is certaine, without poiſoning, euill and diſtemperate dyet, and vſage, or other ſuch forcible cauſe, the haires dure with the body. That they be called excrements, it is by reaſon of their ſuperfluous growth: for cut them as often as you liſt,

and

and they will ſtill come to their naturall length) Not in reſpect of their ſubſtance, and nature. Haires endure long, and are an ornament and vſe alſo to the body, as trees to the earth.

So that I reſolue vpon good reaſon, that fruit-trees well ordered, may liue and like a thouſand yeeres, and beare fruit, and the longer, the more, the greater, and the better, becauſe his vigour is proud and ſtronger, when his yeeres are many: You ſhall ſee old trees put their buds and bloſſomes both ſooner and more plentifully then yong trees by much. And I ſenſibly perceiue my young trees to inlarge their frust, as they grow greater, both for number, and greatneſſe. Young Heifers bring not forth Calues ſo faire, neither are they ſo plentifull to milke, as when they become to be old Kine. No good Houſwife will breed of a young but of an old bird-mother: It is ſo in all things naturally, therefore in trees.

The age of timber-trees.

And if fruit-trees laſt to this age, how many ages is it to be ſuppoſed, ſtrong and huge timber-trees will laſt? whoſe huge bodies require the yeeres of diuers *Methuſhalaes*, before they end their dayes, whoſe ſap is ſtrong and bitter, whoſe barke is hard and thicke, and their ſubſtance ſolid and ſtiffe: all which are defences of health and long life. Their ſtrength withſtands all forcible winds, their ſap of that quality is not ſubiect to wormes and tainting. Their barke receiues ſeldome or neuer by caſualty any wound. And not onely ſo, but he is free from remouals, which are the death of millions of trees, where as the fruit-tree in compariſon is little, and often blowne downe, his ſap ſweet, eaſily, and ſoone tainted, his barke tender, and ſoone wounded, and himſelfe vſed by man, as man vſeth himſelfe, that is either vnskil-

vnskilfully, or carelesly.

It is good for some purposes to regard the age of your fruit trees, which you may easily know, till they come to accomplish twenty yeeres, by his knots: Reckon from his roote vp an arme, and so to hys top-twig, and euery yeeres growth is distinguished from other by a knot, except lopping or remouing doe hinder. Age of trees distinguished.

Chap. 15.
Of gathering and keeping Fruit.

Although it be an easie matter, when God shall send it, to gether and keepe fruit, yet are they certaine things worthy your regard. You must gather your fruit when it is ripe, and not before, else will it wither and be tough and sowre. All fruit generally are ripe, when they beginne to fall. For Trees doe as all other bearers doe, when their yong ones are ripe, they will waine them. The Doue her Pigeons, the Cony her Rabbets, and women their children. Some fruit tree sometimes getting a taint in the setting with a frost or euill winde, will cast his fruit vntimely, but not before he leaue giuing them sap, or they leaue growing. Except from this forefaid rule, Cherries, Damsons, and Bullies. The Cherry is ripe when he is sweld wholy red, and sweet: Damsons and Bulies not before the first frost. Generall Rule. Cherries, &c.

Apples are knowne to be ripe, partly by their colour, growing towards a yellow, except the Leather-coat and some Peares and Greening. Apples.

Timely Summer fruit will be ready, some at Midsummer, most at Lammas for present vse; but generally noe keeping fruit before *Michal-tide*. Hard Winter fruit and Wardens longer. When.

Dry ſtalkes. Gather at the full of the Moone for keeping, gather dry for feare of rotting.

Gather the ſtalkes with all: for a little wound in fruit, is deadly: but not the ſtumpe, that muſt beare the next fruit, nor leaues, for moiſture putrifies.

Seuerally. Gather euery kind ſeuerally by it ſelfe, for all will not keepe alike, and it is hard to diſcerne them, when they are mingled.

Ouerladen trees. If your trees be ouer-laden (as they will be, being ordered, as is before taught you) I like better of pulling ſome off (tho they be not ripe) neere the top end of the bough, then of propping by much, the reſt ſhall be better fed. Propping puts the bough in danger, and frets it at leaſt.

Inſtruments. Inſtruments: A long ladder of light Firre: A ſtoole-ladder as in the 11. Chapter. A gathering apron like a poake before you, made of purpoſe, or a Wallet hung on a bough, or a basket with a fine bottome, or skinne bottome, with Lathes or ſplinters vnder, hung

Bruiſes. in a rope to pull vp and downe: bruiſe none, euery bruiſe is to fruit death: if you doe, vſe them preſently. An hooke to pull boughs to you is neceſſary, breake no boughes.

Keeping. For keeping, lay them in a dry Loft, the longeſt keeping Apples firſt and furtheſt on dry ſtraw, on heapes ten or fourteene dayes, thicke, that they may ſweat. Then dry them with a ſoft and cleane cloth, and lay them thinne abroad. Long keeping fruit would be turned once in a moneth ſoftly: but not in nor immediately after froſt. In a loft couer well with ſtraw, but rather with chaffe or braune: For froſt doth cauſe tender rottenneſſe.

Chap. 16.
Of Profits.

NOw pauſe with your ſelfe, and view the end of all your labours in an Orchard: vnſpeakable pleaſure, and infinite commodity. The pleaſure of an Orchard I referre to the laſt Chapter for the concluſion: and in this Chapter, a word or two of the profit, which thorowly to declare is paſt my skill: and I count it as if a man ſhould attempt to adde light to the Sunne with a Candle, or number the Starres. No man that hath but a meane Orchard or iudgement but knowes, that the commodity of an Orchard is great: Neither would I ſpeake of this, being a thing ſo manifeſt to all; but that I ſee, that through the careleſſe lazineſſe of men, it is a thing generally neglected. But let them know, that they loſe hereby the chiefeſt good which belongs to houſe-keeping.

Compare the commodity that commeth of halfe an acre of ground, ſet with fruit-trees and herbs, ſo as is preſcribed, and an whole acre (ſay it be two) with Corne, or the beſt commodity you can wiſh, and the Orchrad ſhall exceed by diuers degrees.

In *France* and ſome other Countries, and in *England*, they make great vſe of Cydar and Perry, thus made: Cydar and Perry.

Preſſe euery Apple, the ſtalke, vpper end, and all galles away, ſtampe them, and ſtraine them, and within 24. houres tun them vp into cleane, ſweet, and ſound veſſels, for feare of euill ayre, which they will readily take: and if you hang a poakefull of Cloues, Mace, Nutmegs, Cinamon, Ginger, and pils of Lemmons in the midſt of the veſſell, it will make it as wholeſome and pleaſant as wine. The like vſage doth Perry require.

These drinks are very wholesome, they coole, purge, and preuent hot Agues. But I leaue this skil to Physitians.

Fruits. The benefit of your Fruit, Roots and Herbs, though it were but to eate and sell, is much.

Waters. Waters distilled of Roses, Woodbind, Angelica, are both profitable and wondrous pleasant, and comfortable.

Conserue. Saffron and Licoras will yeeld you much Conserues and Preserues, are ornaments to your Feasts, health in your sickenesse, and a good helpe to your friend, and to your purse.

He that will not be moued with such vnspeakable profits, is well worthy to want, when others abound in plenty of good things.

Chap. 17.
Ornaments.

ME thinks hitherto we haue but a bare Orchard for fruit, and but halfe good, so long as it wants those comely Ornaments, that should giue beauty to all our labours, and make much for the honest delight of the owner and his friends.

Delight the chiefe end of Orchards. For it is not to be doubted: but as God hath giuen man things profitable, so hath he allowed him honest comfort, delight, and recreation in all the workes of his hands. Nay, all his labours vnder the Sunne without this are troubles, and vexation of mind: For what is greedy gaine, without delight, but moyling, and turmoylidg in slauery? But comfortable delight, with content, is the good of euery thing, and the patterne of heauen. A morsell of bread with comfort, is better by much then a fat Oxe with vnquietnesse. And who

who can deny, but the principall end of an Orchard, is the honeſt delight of one wearied with the works of his lawfull calling? The very workes of, and in an Orchard and Garden, are better then the eaſe and reſt of and from other labours. When God had made man after his owne Image, in a perfect ſtate, and would haue him to repreſent himſelfe in authority, tranquillity, and pleaſure vpon the earth, he placed him in *Paradiſe*. What was *Paradiſe*? but a Garden and Orchard of trees and hearbs, full of pleaſure? and nothing there but delights. The gods of the earth, reſembling the great God of heauen in authority, Maieſtie, and abundance of all things, wherein is their moſt delight? and whither doe they withdraw themſelues from the troubleſome affaires of their eſtate, being tyred with the hearing and iudging of litigious Controuerſies? choked (as it were) with the cloſe ayres of their ſumptuous buildings, their ſtomacks cloyed with variety of Banquets, their eares filled and ouerburthened with tedious diſcourſings? whither? but into their Orchards? made and prepared, dreſſed and deſtinated for that purpoſe, to renue and refreſh their ſences, and to call home their ouer-wearied ſpirits. Nay, it is (no doubt) a comfort to them, to ſet open their Cazements into a moſt delicate Garden and Orchard, whereby they may not onely ſee that, wherein they are ſo much delighted, but alſo to giue freſh, ſweet, and pleaſant ayre to their Galleries and Chambers.

An Orchard delightſome.

An Orchard is Paradiſe.

Cauſes of wearisomneſſe.

Orchard is the remedy.

And looke, what theſe men do by reaſon of their greatnes and ability, prouoked with delight, the ſame doubtleſſe would euery of vs doe, if power were anſwerable to our deſires, whereby we ſhew manifeſtly, that of all other delights on earth, they that are taken by Orchards,

All delight in Orchards.

are moſt excellent, and moſt agreeing with nature.

This delights all the ſences.

For whereas euery other pleaſure commonly filles ſome one of our ſences, and that onely, with delight, this makes all our ſences ſwimme in pleaſure, and that with infinite variety, ioyned with no leſſe commodity.

Delighteth old age.

That famous *Philoſopher*, and matchleſſe Orator, *M. T. C.* preſcribeth nothing more fit, to take away the tedioufneſſe and heauy load of three or foure ſcore yeeres, then the pleaſure of an Orchard.

Cauſes of delight in an Orchard.

What can your eye deſire to ſee, your eares to hear, your mouth to taſt, or your noſe to ſmell, that is not to be had in an Orchard, with abundance and variety? What more delightſome then an infinite variety of ſweet ſmelling flowers? decking with ſundry colours, the greene mantle of the Earth, the vniuerſall Mother of vs all, ſo by them beſpotted, ſo dyed, that all the world cannot ſample them, and wherein it is more fit to admire the Dyer, then imitate his workemanſhip. Colouring not onely the earth, but decking the ayre, and ſweetning euery breath and ſpirit.

Flowers.

The Roſe red, damaske, veluet, and double double prouince Roſe, the ſweet muske Roſe double and ſingle; the double and ſingle white Roſe. The faire and ſweet ſenting Woodbinde, double and ſingle, and double double. Purple Cowſlips, and double Cowſlips, and double double Cowſlips. Primeroſe double and ſingle. The Violet nothing behinde the beſt, for ſmelling ſweetly. A thouſand more will prouoke your content.

Borders and ſquares.

And all theſe, by the skill of your Gardner, ſo comely, and orderly placed in your Borders and Squares, and ſo intermingled, that none looking thereon, cannot but wonder, to ſee, what Nature corrected by Art can doe.

When

When you behold in diuers corners of your Orchard *Mounts* of ſtone, or wood curiouſly wrought within and without, or of earth couered with fruit-trees: Kentiſh Cherry, Damſons, Plummes, &c. with ſtaires of precious workmanſhip. And in ſome corner (or moe) a true Dyall or Clocke, and ſome Anticke-workes, and eſpecially ſiluer-ſounding Muſique, mixt Inſtruments and voices, gracing all the reſt: How will you be rapt with delight? Mounts. Whence you may moore a Bucke. Dyall. Muſique.

Large Walkes, broad and long, cloſe and open, like the *Tempe* groues in *Theſſalie*, raiſed with grauell and ſand, hauing ſeats and bankes of Cammomile, all this delights the minde, and brings health to the body. Walkes. Seates.

View now with delight the workes of your owne hands, your fruit-trees of all ſorts, loaden with ſweet bloſſomes, and fruit of all taſts, operations, and colours: your trees ſtanding in comely order which way ſoeuer you looke. Order of trees.

Your borders on euery ſide hanging and drooping with Feberries, Raſpberries, Barberries, Currens, and the rootes of your trees powdred with Strawberries, red, white, and greene, what a pleaſure is this? Your Gardner can frame your leſſer wood to the ſhape of men armed in the field, ready to giue battell: or ſwift running Greyhounds: or of well ſented and true running Hounds, to chaſe the Deere, or hunt the Hare. This kind of hunting ſhall not waſte your corne, nor much your coyne. Shape of men and beaſts.

Mazes well framed a mans height, may perhaps make your friend wander in gathering of berries, till he cannot recouer himſelfe without your helpe. Mazes.

To haue occaſion to exerciſe within your Orchard: it ſhall be a pleaſure to haue a Bowling Alley, or rather Bowle-Alley.

(which is more manly, and more healthfull) a paire of Buts, to ſtretch your armes.

Buts.

Rosemary and ſweete Eglantine are ſeemely ornaments about a Doore or Window, and ſo is Woodbinde.

Hearbes.

Looke Chapter 5, and you ſhall ſee the forme of a Conduite, If there were two or more, it were not amiſſe.

Conduit.

And in mine opinion, I could highly commend your Orchard, if either through it, or hard by it there ſhould runne a pleaſant Riuer with ſiluer ſtreames: you might fit in your Mount, and angle a peckled Trout, or ſleightie Eele, or ſome other dainty Fiſh. Or moats, whereon you might row with a Boate, and fiſh with Nettes.

Riuer.

Moats.

Store of Bees in a dry and warme Bee-houſe, comely made of Fir-boords, to ſing, and ſit, and feede vpon your flowers and ſprouts, make a pleaſant noyſe and ſight. For cleanely and innocent Bees, of all other things, loue and become, and thriue in an Orchard. If they thriue (as they muſt needes, if your Gardiner bee skilfull, and loue them: for they loue their friends, and hate none but their enemies) they will, beſides the pleaſure, yeeld great profit, to pay him his wages Yea, the increaſe of twenty Stockes or Stooles, with other fees, will keepe your Orchard.

Bees.

You need not doubt their ſtings, for they hurt not whom they know, and they know their keeper and acquaintance. If you like not to come amongſt them, you need not doubt them: for but neere their ſtore, and in their owne defence, they will not fight, and in that caſe onely (and who can blame them?) they are manly, and fight deſperately. Some (as that Honorable Lady

at

at *Hacknes*, whoſe name doth much grace mine Orchard) vſe to make ſeates for them in the ſtone wall of their Orchard, or Garden, which is good, but wood is better.

A Vine ouer-ſhadowing a ſeate, is very comely, though her Grapes with vs ripe ſlowly. Vine.

One chiefe grace that adornes an Orchard, I cannot let ſlip: A brood of Nightingales, who with their ſeuerall notes and tunes, with a ſtrong delightſome voyce, out of a weake body, will beare you company night and day. She loues (and liues in) hots of woods in her hart. She will helpe you to cleanſe your trees of Caterpillers, and all noyſome wormes and flyes. The gentle Robin-red-breſt will helpe her, and in winter in the coldeſt ſtormes will keepe a part. Neither will the ſilly Wren be behind in Summer, with her diſtinct whiſtle (like a ſweete Recorder) to cheere your ſpirits. Birds. Nightingale. Robin-red-breſt. Wren.

The Black-bird and Threſtle (for I take it the Thruſh ſings not, but deuoures) ſing loudly in a *May* morning, and delights the eare much (and you needs not want their company, if you haue ripe Cherries or Berries, and would as gladly as the reſt do you pleaſure:) But I had rather want their company than my fruit. Black-bird. Thruſh.

What ſhall I ſay? A thouſand of pleaſant delightes are attendant in an Orchard: and ſooner ſhall I be weary, then I can recken the leaſt part of that pleaſure, which one that hath and loues an Orchard, may find therein.

What is there of all theſe few that I haue reckoned, which doth not pleaſe the eye, the eare, the ſmell, and taſte? And by theſe ſences as Organes, Pipes, and windowes, theſe delights are carried to refreſh the gentle, generous, and noble mind.

To

Your owne labour.

To conclude, what ioy may you haue, that you liuing to ſuch an age, ſhall ſee the bleſſings of God on your labours while you liue, and leaue behind you to heires or ſucceſſors (for God will make heires) ſuch a worke, that many ages after your death, ſhall record your loue to their Countrey? And the rather, when you conſider (*Chap.* 14.) to what length of time your worke is like to laſt.

FINIS.

THE

COVNTRY HOVSE-VVIFES GARDEN.

Containing Rules for Hearbs and Seedes of common vſe, with their times and ſeaſons, when to ſet and ſow them.

TOGETHER,
With the Husbandry of Bees, publiſhed with ſecrets *very neceſſary for euery Houſe-wife.*

As alſo diuerſe new Knots for Gardens.

The Contents ſee at large in the laſt Page.

Geneſ. 2. 29.
I haue giuen vnto you euery Herbe, and euery tree, that ſhall be to you for meate.



LONDON,
Printed by *Nicholas Okes* for IOHN HARISON, at the golden Vnicorne in Pater-noſter-row. 1631.

THE COVNTRY HOVSVVIFES GARDEN.

CHAP. I.

The ſoyle.

THe ſoyle of an Orchard and Garden, differ onely in theſe three points: Firſt, the Gardens ſoyle would be ſomewhat dryer, becauſe hearbes being more tender then trees, can neither abide moiſture nor drought, in ſuch exceſſiue meaſure, as trees; and therefore hauing a dryer ſoyle, the remedy is eaſie againſt drought, if need be: water ſoundly, which may be done with ſmall labour, the compaſſe of a Garden being nothing ſo great, as of an Orchard, and this is the cauſe (if they know it) that Gardners raiſe their ſquares: but if moyſture trouble you, I ſee no remedy without a generall danger, except in Hops, which delight much in a low and ſappy earth. Dry. Hops.

Secondly, the ſoyle of a Garden would be plaine and

leuell,

Plaine. leuell, at leaſt euery ſquare (for we purpoſe the ſquare to be the fitteſt forme) the reaſon: the earth of a garden wanting ſuch helpes, as ſhould ſtay the water, which an orchard hath, and the rootes of hearbes being ſhort, and not able to fetch their liquor from the bottome, are more annoyed by drought, and the ſoyle being mellow and looſe, is ſoone either waſht away, or ſends out his heart by too much drenching and waſhing.

Thirdly, if a garden ſoyle be not cleere of weedes, and namely, of graſſe, the hearbes ſhall neuer thriue: for how ſhould good hearbes proſper, when euill weeds waxe ſo faſt: conſidering good hearbes are tender in reſpect of euill weedes: theſe being ſtrengthened by nature, and the other by art? Gardens haue ſmall plots in compariſon, and therefore may be more eaſily be fallowed, at the leaſt one halfe yeare before, and the better dreſſed after it is framed. And you ſhall finde that cleane keeping doth not onely auoide danger of gathering weedes, but alſo is a ſpeciall ornament, and leaues more plentifull ſap for your tender hearbes.

Chap. 2.
Of the Sites.

I Cannot ſee in any ſort, how the ſite of the one ſhould not be good, and fit for the other: The ends of both being one, good, wholeſome, and much fruit ioyned with delight, vnleſſe trees be more able to abide the nipping froſtes than tender hearbes: but I am ſure, the flowers of trees are as ſoone periſhed with cold, as any hearbe except Pumpions, and Melons.

Chap.

Chap. 3.

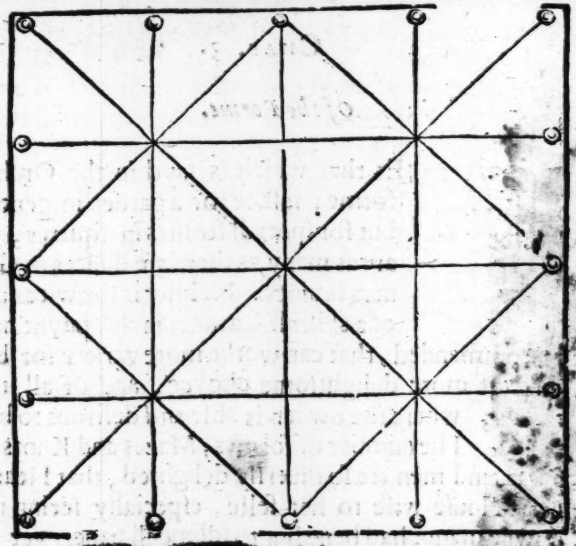
Of the Forme.



Et that which is ſayd in the Orchards forme, ſuffice for a garden in generall: but for ſpeciall formes in ſquares, they are as many, as there are diuices in Gardners braines. Neither is the wit and art of a skilfull Gardner in this poynt not to be commended, that can worke more variety for breeding of more delightſome choyce, and of all thoſe things, where the owner is able and deſirous to be ſaſhied. The number of formes, Mazes and Knots is ſo great, and men are ſo diuerſly delighted, that I leaue euery Houſe-wife to her ſelfe, eſpecially ſeeing to ſet downe many, had bene but to fill much paper; yet leſt I depriue her of all delight and direction, let her view theſe few, choyſe, new formes, and note this generally, that all plots are ſquare, and all are bordered about with Priuit, Raiſins, Fea-berries, Roſes, Thorne, Roſemary, Bee-flowers, Iſop, Sage, or ſuch like.

Chap.

The ground plot for knots.

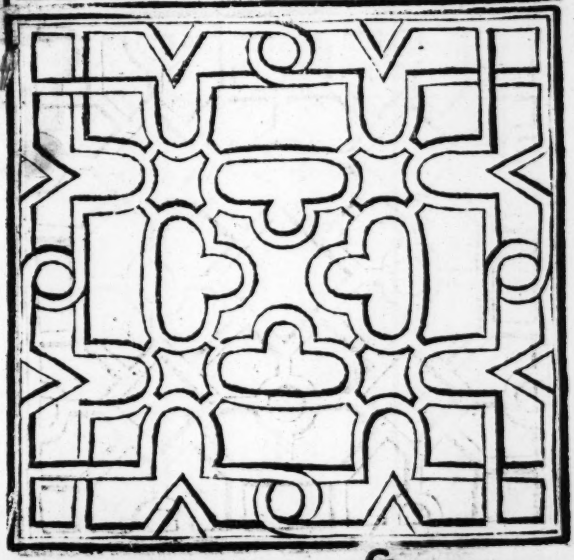


Cinkfoyle.





Flowerdeluce.

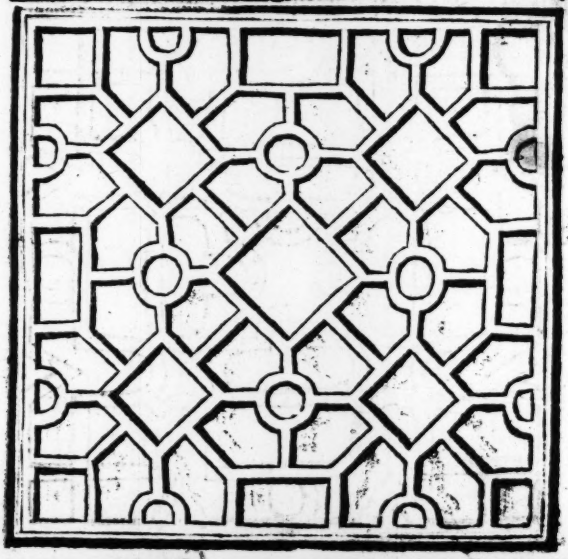


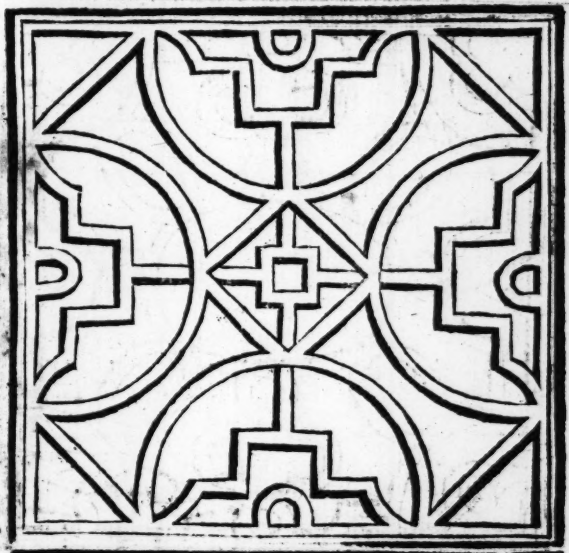
The Treffoyle.

The Fret.

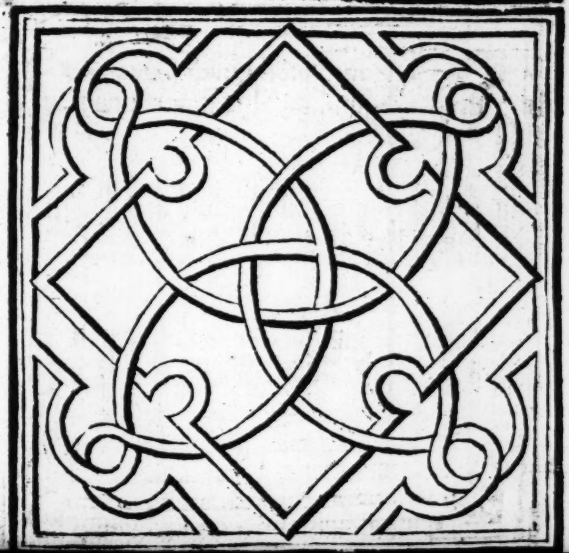


Lozengers.



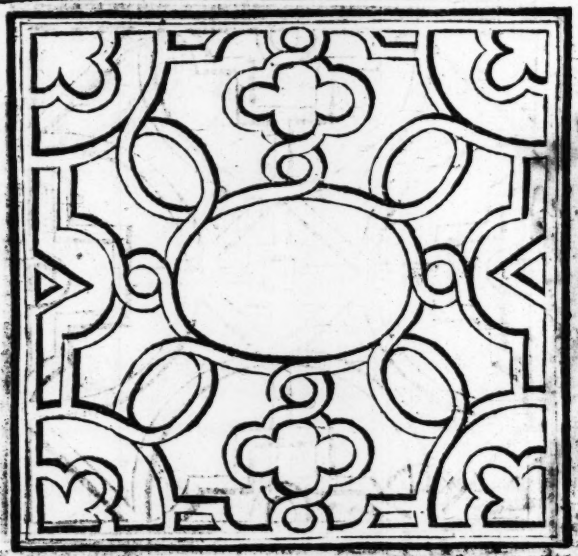


Cresse-bow.

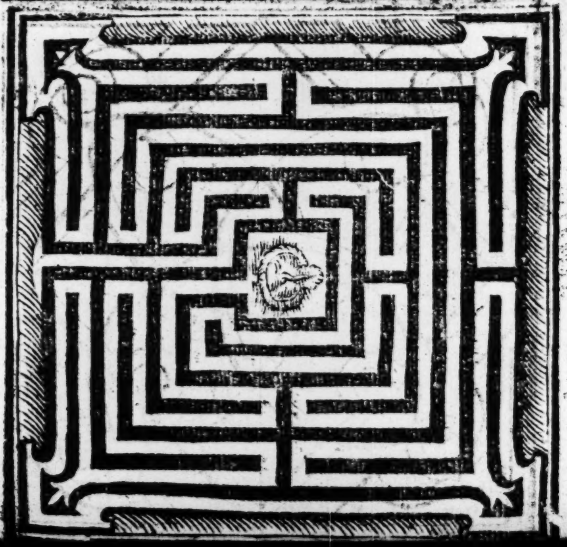


Diamond.

Quail.



Mazes



Chap. 4.

Of the Quantity.

A Garden requireth not ſo large a ſcope of ground as an Orchard, both in regard of the much weeding, dreſſing and remouing, and alſo the paines in a Garden is not ſo well repaied home, as in an Orchard. It is to be graunted, that the Kitchin garden doth yeeld rich gaines by berries, roots, cabbages, &c. yet theſe are no way comparable to the fruits of a rich Orchard: but notwithſtanding I am of opinion, that it were better for *England*, that we had more Orchards and Gardens, and more large. And therefore we leaue the quantity to euery mans ability and will.

Chap. 5.

Of Fence.

SEeing we allow Gardens in Orchard plots, and the benefit of a Garden is much, they both require a ſtrong and ſhrowding fence. Therefore leauing this, let vs come to the hearbs themſelues, which muſt be the fruit of all theſe labours.

Chap. 6.

Of two Gardens.

HEarbes are of two ſorts, and therefore it is meete (they requiring diuers manners of Husbandry) that we haue two Gardens: A garden for flowers, and a Kitchen garden: or a Summer garden: not that we meane ſo perfect a diſtinction, that the Garden for flowers ſhould or can be without hearbes good for the Kitchen, or the Kitchen garden ſhould want flowers, nor on the contrary: but for the moſt part they would be ſeuered: firſt, becauſe your Garden flowers ſhall ſuffer ſome diſgrace, if among them you intermingle Onions, Parſnips, &c. Secondly, your Garden that is durable, muſt be of one forme: but that, which is for your Kitchens vſe, muſt yeeld daily rootes, or other hearbes, and ſuffer deformity. Thirdly, the hearbs of both will not be both alike ready, at one time, either for gathering, or remouing. Firſt therefore

Of the Summer Garden.

THeſe hearbs and flowers are comely and durable for ſquares and knots, and all to be ſet at *Michaeltide*, or ſomewhat before, that they may be ſetled in, and taken with the ground, before winter, though they may be ſet, eſpecially ſowne in the ſpring.

Roſes of all ſorts (ſpoken of in the Orchard) muſt be

beſet. Some vſe to ſet ſlips and twine them, which ſometimes, but ſeldome thriue all.

Roſemary, Lauender, Bee-flowers, Iſop, Sage, Time, Cowſlips, Pyony, Daſies, Cloue Gilliflowers, Pinkes, Sothernwood, Lillies, of all which hereafter.

Of the Kitchen Garden.

THough your Garden for flowers doth in a ſort peculiarly challenge to it ſelfe a profit, and exquiſite forme to the eyes, yet you may not altogether neglect this, where your hearbes for the pot do growe. And therefore, ſome here make comely borders with the hearbes aforeſayd. The rather becauſe abundance of Roſes and Lauender yeeld much profit, and comfort to the ſences: Roſe-water and Lauender, the one cordial (as alſo the Violets, Burrage, and Buglas) the other reuiuing the ſpirits by the ſence of ſmelling: both moſt durable for ſmell, both in flowers and water: you need not here raiſe your beds, as in the other garden, becauſe Summer towards, will not let too much wet annoy you.

And theſe hearbes require more moyſture: yet muſt you haue your beds diuided, that you may goe betwixt to weede, and ſomewhat forme would be expected: To which it auaileth, that you place your herbes of biggeſt growth, by walles, or in borders, as Fenell, &c. and the loweſt in the middeſt, as Saffron, Strawberries, Onions, &c.

Chap. 7.
Diuision of hearbs.

GArden hearbs are innumerable, yet these are common and sufficient for our country Houſe-wifes.

Hearbs of greateſt growth.

Fenell, Anglica, Tanſie, Hollihock, Louage, Elly Campane, French mallows, Lillies, French poppy, Endiue, Succory and Clary.

Herbes of middle growth.

Burrage, Buglas, Parſley, ſweete Sicilly, Floure-de-luce, Stocke Gilliflowers, Wall-flowers, Anniſeedes, Coriander, Feather-fewell, Marigolds, Oculus Chriſti, Langdibeefe, Alexanders, Carduus Benedictus.

Hearbes of ſmalleſt growth.

Panſy, or Harts-eale, Coaſt Margeram, Sauery, Strawberries, Saffron, Lycoras, Daffadowndillies, Leekes, Chiues, Chibals, Skerots, Onions, Batchellors buttons, Daſies, Peniroyall.

Hitherto I haue onely reckoned vp, and put in this ranke, ſome hearbs. Their Husbandry follow each in an Alphabeticall order, the better to be found.

Chap. 8.
Huſbandry of Herbes.

Alexanders are to be renewed as *Angelica*. It is a timely Pot-hearbe.

Anglica is renued with his ſeede, whereof he beareth plenty the ſecond yeare, and ſo dieth. You may remoue the rootes the firſt yeare. The leaues diſtilled,

ſtilled, yeeld water ſoueraigne to expell paine from the ſtomacke. The roote dried taken in the fall, ſtoppeth the poares againſt infections.

Annyſeedes make their growth, and beareth ſeeds the firſt yeere, and dieth as *Coriander*: it is good for opening the pipes, and it is vſed in Comfits.

Artichoakes are renewed by diuiding the rootes into ſets, in *March*, euery third or fourth yeare. They require a ſeuerall vſage, and therefore a ſeuerall whole plot by themſelues, eſpecially conſidering they are plentifull of fruite much defired.

Burrage and *Buglas*, two Cordials, renue themſelues by ſeed yearely, which is hard to be gathered: they are exceeding good Pot-hearbes, good for Bees, and moſt comfortable for the heart and ſtomacke, as Quinces and Wardens.

Camomile, ſet rootes in bankes and walkes. It is ſweete ſmelling, qualifying head-ach.

Cabbages require great roome, they ſeed the ſecond yeare: ſow them in *February*, remoue them when the plants are an handfull long, ſet deepe and wet. Looke well in drought for the white Caterpillers worme, the ſpaunes vnder the leafe cloſely: for euery liuing Creature doth ſeeke foode and quiet ſhelter, and growing quicke, they draw to, and eate the heart: you may finde them in a rainy deawy morning.

It is a good Pothearbe, and of this hearbe called *Cole*, our Countrie Houſe-wiues giue their pottage their name, and call them *Caell*.

Carduus Benedictus, or bleſſed thiſtle, ſeeds and dyes the firſt yeere, the exeellent vertue thereof I referre to Herbals, for we are Gardiners, not Phyſitians.

Carrets are ſowne late in *Aprill* or *May*, as Turneps elſe

elſe they ſeede the firſt yeere, and then their roots are naught: the ſecond yeere they dye, their roots grow great, and require large roome.

Chibals or *Chiues* haue their roots parted, as Garlick, Lillies, &c. and ſo are they ſet euery third or fourth yeere: a good pot-hearb opening, but euill for the eies.

Clarie is ſowne, it ſeeds the ſecond yeere, and dyes. It is ſomewhat harſh in taſte, a little in pottage is good, it ſtrengtheneth the reines.

Coeſt, Roote parted make ſets in *March*: it beares the ſecond yeere: it is vſed in Ale in *May*.

Coriander is for vſage and vſes, much like Anniſeeds.

Daffadowndillies haue their roots parted, and ſet once in three or foure yeere, or longer time. They flower timely, and after *Midſummer*, are ſcarcely ſeene. They are more for ornament, then for vſe, ſo are Daiſies.

Daiſie-rootes parted and ſet, as Flowre-deluce and Camomile, when you ſee them grow too thicke or decay. They be good to keepe vp, and ſtrengthen the edges of your borders, as Pinkes, they be red, white, mixt.

Ellycampane roote is long laſting, as is the Lounge, it ſeeds yeerely, you may diuide the roote, and ſet the roote, taken in Winter it is good (being dryed, powdered and drunke to kill itches.

Endiue and *Succory* are much like in nature, ſhape, and vſe, they renue themſelues by ſeed, as Fennell, and other hearbs. You may remoue them before they put forth ſhankes, a good Pot-hearbe.

Fennell is renued, either by the ſeeds (which it beareth the ſecond yeere, and ſo yeerely in great abundance) ſowne in the fall or Spring, or by diuiding one roote into many Sets, as Artichoke, it is long of growth

and

and life. You may remoue the roote vnſhankt. It is exceeding good for the eyes, diſtilled, or any otherwiſe taken: it is vſed in dreſſing Hiues for ſwarmes, a very good Pot-hearbe, or for Sallets.

Fetherfewle ſhakes ſeed. Good againſt a ſhaking Feuer, taken in a poſſet-drinke faſting.

Flower-deluce, long laſting. Diuide his roots, and ſet: the roots dryed haue a ſweet ſmell.

Garlicke may be ſet an handfull diſtance, two inches deepe, in the edge of your beds. Part the heads into ſeuerall cloues, and euery cloue ſet in the latter end of *February*, will increaſe to a great head before *September*: good for opening, euill for eyes: when the blade is long, faſt two & two together, the heads will be bigger.

Hollyhocke riſeth high, ſeedeth and dyeth: the chiefe vſe I know is ornament.

Iſop is reaſonable long laſting: young roots are good ſet, ſlips better. A good pot-hearbe.

Iuly-flowers, commonly called *Gilly-flowers*, or *Cloue-Iuly-flowers* (I call them ſo, becauſe they flowre in *Iuly*) they haue the name of *Cloues*, of their ſent. I may well call them the King of flowers (except the Roſe) and the beſt ſort of them are called *Queene-Iuly flowers*. I haue of them nine or ten ſeuerall colours, and diuers of them as big as Roſes: of all flowers (ſaue the Damaske Roſe) they are the moſt pleaſant to ſight and ſmell: they laſt not paſt three or foure yeeres vntremoued. Take the ſlips (without ſhanks) and ſet any time, ſaue in extreme froſt, but eſpecially at *Michael tide*. Their vſe is much in ornament, and comforting the ſpirits, by the ſence of ſmelling.

Iuly flowers of the wall, or wall-*Iuly-flowers*, wall-flowers, or Bee-flowers, or Winter-*Iuly-flowers*, becauſe

cauſe growing in the walles, euen in Winter, and good for Bees, will grow euen in ſtone walls, they will ſeeme dead in Summer, and yet reuiue in Winter. They yeeld ſeed plentifully, which you may ſow at any time, or in any broken earth, eſpecially on the top of a mud-wall, but moiſt, you may ſet the root before it be brancht, euery ſlip that is not flowr'd will take root, or crop him in Summer, and he will flower in Winter: but his Winter-ſeed is vntimely. This and Palmes are exceeding good, and timely for Bees.

Leekes yeeld ſeed the ſecond yeere, vnremoued and die, vnleſſe you remoue them, vſuall to eate with ſalt and bread, as Onyons alwaies greene, good pot-hearb, cuill for the eyes.

Lauendar ſpike would be remoued within 7 yeeres, or eight at the moſt. Slips twined as Iſop and Sage, would take beſt at *Michael-tide*. This flower is good for Bees, moſt comfortable for ſmelling, except Roſes: and kept dry, is as ſtrong after a yeere, and when it is gathered. The water of this is comfortable.

White *Lauendar* would be remoued ſooner.

Lettice yeelds ſeed the firſt yeere, and dyes: ſow betime, and if you would haue them *Cabbage* for Sallets, remoue them as you doe *Cabbage*. They are vſuall in Sallets, and the pot.

Lillies white and red, remoued once in three or foure yeeres their roots yeeld many Sets, like the Garlicke, *Michael-tide* is the beſt: they grow high, after they get roote: theſe roots are good to breake a Byle, as are Mallowes and Sorrell.

Mallowes, French or gagged, the firſt or ſecond yeere, ſeed plentifully: ſow in *March*, or before, they are good for the houſe-wifes pot, or to breake a bunch.

Marigolds

Marigolds moſt commonly come of ſeed, you may remoue the Plants, when they be two inches long. The double Marigold, being as bigge as a little Roſe, is good for ſhew. They are a good Pot-hearbe.

Oculus Chriſti, or Chriſts eye, ſeeds and dyes the firſt or ſecond yeere: you may remoue the yong Plants, but ſeed is better: one of theſe ſeeds put into the eye, within three or foure houres will gather a thicke skinne, cleere the eye, and bolt it ſelfe forth without hurt to the eye. A good Pot-hearbe.

Onyons are ſowne in *February*, they are gathered at *Michael-tide*, and all the Summer long, for Sallets; as alſo young Parſly, Sage, Chibals, Lettice, ſweet Sicilly, Fennell, &c good alone, or with meate as Mutton, &c. for ſauce, eſpecially for the pot.

Parſly ſow the firſt yeere, and vſe the next yeere: it ſeedes plentifully, an hearbe of much vſe, as ſweet Sicily is. The ſeed and roots are good againſt the Stone.

Parſneps require and whole plot, they be plentifull and common: ſow them in *February*, the Kings (that is in the middle) ſeed broadeſt and reddeſt. Parſneps are ſuſtenance for a ſtrong ſtomacke, not good for euill eies: When they couer the earth in a drought, to tread the tops, make the rootes bigger.

Peny-royall, or Pudding Graſſe, creepes along the ground, like ground Iuie. It laſts long, like Daiſies, becauſe it puts and ſpreads dayly new roots. Diuide, and remoue the roots. It hath a pleaſant taſte and ſmell, good for the pot, or hackt meate, or Haggas Pudding.

Pumpions: Set ſeedes with your finger, a finger deepe, late in *March*, and ſo ſoone as they appeare, euery night if you doubt froſt, couer them, and water them continually out of a water-pot: they be very tender,

their

their fruit is great and wateriſh.

French Poppy beareth a faire flower, and the Seed will make you ſleepe.

Raddiſh is ſauce for cloyed ſtomacks, as Capers, Oliues, and Cucumbers, caſt the ſeeds all Summer long here and there, and you ſhall haue them alwaies young and freſh.

Roſemary, the grace of hearbs here in *England*, in other Countries common. To ſet ſlips immediately after *Lammas*, is the ſureſt way. Seede ſowne may proue well, ſo they be ſowne in hot weather, ſomewhat moiſt, and good earth: for the hearbe, though great, is neſh and tender (as I take it) brought from hot Countries to vs in the cold North: ſet thinne. It becomes a Window well. The vſe is much in meates, more in Phyſicke, moſt for Bees.

Rue, or Hearbe of Grace, continually greene, the ſlips are ſet. It laſts long as Roſemary, Sothernwood, &c. too ſtrong for mine Houſewifes pot, vnleſſe ſhe will brue Ale therewith, againſt the Plague: let him not ſeede, if you will haue him laſt.

Saffron euery third yeere his roots would be remoued at *Midſummer*: for when all other hearbs grow moſt, it dyeth. It floweth at *Michael-tide*, and groweth all Winter: keepe his flowers from birds in the morning, & gather the yellow (or they ſhape much like Lillies) dry, and after dry them: they be precious, expelling diſeaſes from the heart and ſtomacke.

Sauery ſeeds and dyes the firſt yeere, good for my Houſewifes pot and pye.

Sage: ſet ſlips in *May*, and they grow aye: Let it not ſeed it will laſt the longer. The vſe is much and common. The Monkiſh Prouerbe is *tritum*:

Cur

Cur moritur homo, cum ſaluia creſcit in horto?

Skerots, the roots are ſet when they be parted, as *Pyonie*, and Flower-deluce at *Michael-tide*: the roote is but ſmall and very ſweet. I know none other ſpeciall vſe but the Table.

Sweet *Sicely*, long laſting, pleaſantly taſting, either the ſeed ſowne, or the root parted, and remoued, makes increaſe, it is of like vſe with Parſly.

Strawberries long laſting, ſet roots at *Michael-tide* or the Spring, they be red, white and greene, and ripe, when they be great and ſoft, ſome by *Midſummer* with vs. The vſe is: they will coole my Houſewife well, if they be put in Wine or Creame with Sugar.

Time, both ſeeds, ſlips and rootes are good. If it ſeed not, it will laſt three or foure yeeres or more, it ſmelleth comfortably. It hath much vſe: namely, in all cold meats, it is good for Bees.

Turnep is ſowne. In the ſecond yeere they beare plenty of ſeed: they require the ſame time of ſowing that Carrets doe: they are ſicke of the ſame diſeaſe that Cabbages be. The roote increaſeth much, it is moſt wholeſome, if it be ſowne in a good and well tempered earth: Soueraigne for eyes and Bees.

I reckon theſe hearbs onely, becauſe I teach my Countrey Houſewife, not skilfull Artiſts, and it ſhould be an endleſſe labour, and would make the matter tedious to reckon vp, *Landbeeſe, Stocke-Iuly-flowers, Charnall, Valerian, Go-to bed at noone, Piony, Licoras, Tanſie, Garden mints, Germander, Centaurie*, and a thouſand ſuch phyſicke Hearbs. Let her firſt grow cunning in this, and then ſhe may enlarge her Garden as her skill and ability increaſeth. And to helpe her the more, I haue ſet her downe theſe obſeruations.

CHAP.

Chap. 9.
Generall Rules in Gardening.

IN the South parts Gardening may be more timely, and more ſafely done, then with vs in *Yorkeſhire*, becauſe our ayre is not ſo fauourable, nor our ground ſo good.

2 Secondly moſt ſeeds ſhakt, by turning the good earth, are renued, their mother the earth keeping them in her bowe's, till the Sunne their Father can reach them with his heat.

3 In ſetting hearbs, leaue no top more then an handfull aboue the ground, nor more then a foot vnder the earth.

4 Twine the roots of thoſe ſlips you ſet, if they will abide it. Gilly-flowers are too tender.

5 Set moiſt, and ſowe dry.

6 Set ſlips without ſhankes any time, except at *Midſummer*, and in troſts.

7 Seeding ſpoiles the moſt roots, as drawing the heart and ſap from the root.

8 Gather for the pot and medicines, hearbs tender and greene, the ſap being in the top, but in Winter the root is beſt.

9 All the hearbs in the Garden for flowers, would once in ſeuen yeeres be renued, or ſouncly watered with puddle water, except Roſemary.

10 In all your Gardens and Orchards, bankes and ſeates of Camomile, Peny-royall, Daiſies and Violets, are ſeemely and comfortable.

11 Theſe require whole plots: Artichokes, Cabbages, Turneps, Parſneps, Onyons, Carrets, and (if you will)

will) Saffron and Scerrits.

12 Gather all your ſeeds, dead, ripe, and dry.

13 Lay no dung to the roots of your hearbs, as vſually they doe: for dung not melted is too hot, euen for trees.

14 Thin ſetting and ſewing (ſo the roots ſtand not paſt a foot diſtance) is profitable, for the hearbs will like the better. Greater hearbs would haue more diſtance.

15 Set and ſow hearbs in their time of growth (except at *Midſummer*, for then they are too too tender) but trees in their time of reſt.

16 A good Houſewife may, and will gather ſtore of hearbs for the pot, about *Lammas*, and dry them, and pownd them, and in Winter they will make good ſeruice.

Thus haue I lined out a Garden to our Countrey Houſewiues, and giuen them rules for common hearbs. If any of them (as ſometimes they are) be knotty, I referre them to Chap. 3. The skill and paines of weeding the Garden with weeding kniues of fingers, I refer to themſelues, and their maides, willing them to take the opportunitie after a ſhowre of raine: withall I aduiſe the Miſtreſſe, either be preſent her ſelfe, or to teach her maides to know hearbs from weeds. Weeding. A good note.

Chap. 10.

The Husbandry of Bees.

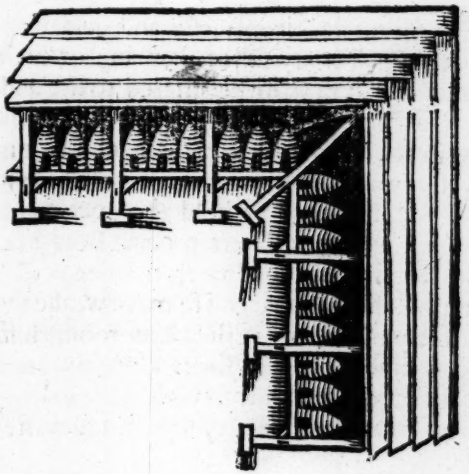


Here remaineth one neceſſary thing to be preſcribed, which in mine opinion makes as much for ornament as either Flowers, or forme, or cleanlineſſe, and I am ſure as commodious as any of, or all the reſt: which is Bees, well ordered. And I will not account her any of my good Houſe-wiues, that wanteth either Bees or skilfulneſſe about them. And though I knowe ſome haue written well and truely, and others more plentifully vpon this theame: yet ſomewhat haue I learned by experience (being a Bee-maiſter my ſelfe) which hitherto I cannot finde put into writing, for which I thinke our Houſe-wiues will count themſelues beholding vnto me.

Bee-houſe. The firſt thing that a Gardiner about Bees muſt be carefull for, is an houſe not ſtakes and ſtones abroad, *Sub dio*: for ſtakes rot and reele, raine and weather eate your hiues, and couers, and cold moſt of all is hurtfull for your Bees. Therefore you muſt haue an houſe made along, a ſure dry wall in your Garden, neere, or in your Orchard: for Bees loue flowers and wood with their hearts.

This

This is the forme, a Frame ſtanding on poſts with a Floore (if you would haue it hold more Hiues, two



Floores boorded) layd on bearers, and backe poſts, couered ouer with boords, ſlate-wiſe.

Let the floores be without holes or clifts, leaſt in caſting time, the Bees lye out, and loyter.

And though your Hiues ſtand within an hand breadth the one of another: yet will Bees know their home.

In this Frame may your Bees ſtand drye and warme, eſpecially if you make doores like doores of windows to ſhroud them in winter, as in an houſe: prouided you leaue the hiues mouths open. I my ſelf haue

deuiſed ſuch an houſe, and I find that it keeps and ſtrengthens my Bees much, and my hiues will laſt ſixe to one.

Hiues. M. *Markham* commends Hiues of wood I diſcommend them not: but ſtraw Hiues are in vſe with vs, and I thinke with all the world, which I commend for nimblenesſe, cloſeneſſe, warmneſſe and drineſſe. Bees loue no externall motions of dawbing or ſuch like. Sometimes occaſion ſhall be offered to lift and turne Hiues, as ſhall appeare hereafter. One light entire hiue of ſtraw in that caſe is better, then one that is dawbed, weighty and cumberſome. I wiſh euery hiue, for a keeping ſwarme, to hold three pecks at leaſt in meaſure. For too little Hiues procure Bees, in caſting time, either to lye out, and loyter, or elſe to caſt before they be ripe and ſtrong, and ſo make weake ſwarmes and vntimely: Whereas if they haue roome ſufficient, they ripen timely, and caſting ſeaſonably, are ſtrong, and fit for labour preſently. Neither would the hiue be too too great, for then they loyter, and waſte meate and time.

Hiuing of Bees. Your Bees delight in wood, for feeding, eſpecially for caſting: therefore want not an Orchard. A *Mayes* ſwarme is worth a Mares Foale: if they want wood, they be in danger of flying away. Any time before *Midſummer* is good, for caſting and timely before *July* is not euill. I much like M. *Markhams* opinion for hiuing a ſwarme in combes of a dead or forſaken hiue, ſo they be freſh & cleanly. To thinke that a ſwarme of your owne, or others, will of it ſelfe come into ſuch an hiue, is a meere conceit. *Experto crede Roberto.* His ſmearing with honey, is to no purpoſe, for the other Bees will eate it vp. If your ſwarme knit in the top of a tree, as they will, if the winde beate them not to fall

downe

downe: let the ſtoole or ladder deſcribed in the Orchard, doe you ſeruice.

The leſſe your Spelkes are, the leſſe is the waſte of your honey, and the more eaſily will they draw, when you take your Bees. Foure Spelkes athwart, and one top Spelke are ſufficient. The Bees will faſten their combes to the Hiue. A little honey is good: but if you want, Fennell will ſerue to rub your Hiue withall. The Hiue being dreſt and ready ſpelkt, rubd and the hole made for their paſſage (I vſe no hole in the Hiue, but a piece of wood hoal'd to ſaue the hiue & keep out Mice) ſhake in your Bees, or the moſt of them (for all commonly you cannot get) the remainder will follow. Many vſe ſmoke, Nettles, &c. which I vtterly diſlike: for Bees loue not to be moleſted. Ringing in the time of caſting is a meere fancie, violent handling of them is ſimp'ly euill, becauſe Bees of all other creatures, loue cleanlineſſe and peace. Therefore handle them leaſurely & quietly, and their Keeper whom they know, may do with them, what he will, without hurt: Being hiued at night, bring them to their ſeat. Set your hiues all of one yeere together. Spelkes

Signes of breeding, if they be ſtrong.

1 They will auoid dead young Bees and Droanes.

2 They will ſweat in the morning, till it runne from them; alwaies when they be ſtrong.

Signes of caſting.

1 They will fly Droanes, by reaſon of heat.

2 The young ſwarme will once or twice in ſome faire ſeaſon, come forth muſtering, as though they would caſt, to proue themſelues, and goe in againe.

3 The night before they caſt, if you lay your eare to the Hiues mouth, yo ſhall heare two or three, but eſpecially one aboue the reſt, cry, Vp, vp, vp; or, Tour, tour, tout, like a trumpet, ſounding the alarum to the battell.

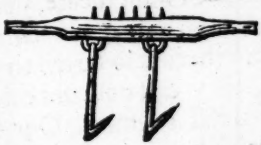
Much deſcanting there is, of, and about the Maſter-Bee, and their degrees, order and gouernment: but the truth in this point is ratherimagined, then demonſtrated There are ſome coniectures of it, *viz.* we ſee in the combs diuers greater houſes then the reſt, & we heare commonly the night before they caſt, ſometimes one Bee, ſometimes two, or more Bees, giue a lowd and ſeuerall ſound from the reſt, and ſometimes Bees of greater bodies then the common ſort: but what of all this? I leane not on coniectures, but loue to ſet downe that I know to be true, and leaue theſe things to them that loue to diuine. Keepe none weake, for it is hazard, oftentimes with loſſe: Feeding will not helpe them: for being weake, hey cannot come downe to meate, or if they come downe, they dye, becauſe Bees weake cannot abide cold. If none of theſe, yet will the other Bees being ſtrong, ſmell the honey, and come and ſpoile, and kill them. Some helpe is in caſting time, to put two weake ſwarmes together, or as M. *Markham* well ſaith: Let not them caſt late, by raiſing them with wood or ſtone: but with impes (ſay I.) An impe is three or foure wreathes, wrought as the hiue, the ſame compaſſe, to raſe the hiue withall: but by experience in tryall, I haue found out a better way by Cluſtering, for late or weake ſwarmes hitherto not found out of any that I know. That is this: After caſting time, if I haue any ſtocke proud, and hindered from timely caſting, with former Winters

Catching.

Cluſtering.

ters pouerty, or euill weather in caſting time, with two handles and crookes, fitted for the purpoſe, I turne vp that ſtocke ſo peſtred with Bees, and ſet it on the crowne, vpon which ſo turned with the mouth vpward, I place another empty hiue well dreſt, and ſpelkt, into which without any labour, the Swarme that would not depart, and caſt, will preſently aſcend, becauſe the old Bees haue this qualitie (as all other breeding creatures haue) to expell the young, when they haue brought them vp.

There will the ſwarme build as kindely, as if they had of themſelues beene caſt. But bee ſure you lay betwixt the Hiues ſome ſtraight and cleanly ſticke or ſtickes, or rather a boord with holes, to keepe them aſunder: otherwiſe they will ioyne their workes together ſo faſt, that they cannot be parted. If you ſo keepe them aſunder at *Michael-tide*, if you like the weight of your ſwarme (for the goodneſſe of ſwarmes is tryed by weight) ſo catched, you may ſet it by for a ſtocke to keepe. Take heed in any caſe the combes be not broken, for then the other Bees will ſmell the honey, and ſpoyle them. This haue I tryed to be very profitable for the ſauing of Bees. The Inſtrument hath this forme. The great ſtraight



piece is wood, the reſt are iron claſpes and nailes, the claſpes are looſe in the Staples: Two men with two of theſe faſtened to the Hiue, will eaſily turne it vp.

They gather not till *Iuly*; for then they be diſcharged of their young, or elſe they are become now ſtrong to labour, and now ſap in flowers is ſtrong and proud: by reaſon of time, and force of Sunne. And now alſo in the North (and not before) the hearbs of greateſt vigour put their Flowers; As Beanes, Fennell, Burrage, Rape, &c.

The moſt ſenſible weather for them, is heat and drought, becauſe the neſh Bee can neither abide cold or wet: and ſhowres (which they well fore-ſee) doe interrupt their labours, vnleſſe they fall on the night, and ſo they further them.

Droanes. After caſting time, you ſhall benefit your ſtockes much, if you helpe them to kill their Droanes, which by all probability and iudgement, are an idle kind of Bees, and waſtefull. Some ſay they breed and haue ſeene young Droanes in taking their honey, which I know is true. But I am of opinion, that there are alſo Bees which haue loſt their ſtings, and ſo being, as it were gelded, become idle and great. There is great vſe of them: *Deus, et natura nihil fecit fruſtra.* They hate the Bees, and cauſe them caſt the ſooner. They neuer come foorth but when they be ouer heated. They neuer come home loaden. After caſting time, and when the Bees want meate, you ſhall ſee the labouring Bees faſten on them, two, three, or foure at once, as if they were theeues to be led to the gallowes, and killing them, they caſt out, and draw them farre from home, as hatefull enemies. Our Houſewife, if ſhe be the Keeper of her owne Bees (as ſhe had need to be) may with her bare hand in the heate of the day, ſafely deſtroy them in the hiues mouth. Some vſe towards night, in a hot day, to ſet before the mouth of the

the hiue a thin board, with little holes, in at which the leſſer Bees may enter, but not the Droanes, ſo that you may kill them at your pleaſure.

Snayles ſpoile them by night like theeues: they come ſo quietly, and are ſo faſt, that the Bees feare them not. Looke earely and late, eſpecially in a rainie or dewey euening or morning. Anneyances.

Mice are no leſſe hurtfull, and the rather to hiues of ſtraw: and therefore couerings of ſtraw draw them. They will in either at the mouth, or ſheere themſelues an hole. The remedy is good Cats, Rats-bane and watching.

The cleanly Bee hateth the ſmoake as poiſon, therefore let your Bees ſtand neerer your garden then your Brew-houſe or Kitchen.

They ſay Sparrowes and Swallowes are enemies to Bees, but I ſee it not.

More hiues periſh by Winters cold, then by all other hurts: for the Bee is tender and nice, and onely liues in warme weather, and dyes in cold: And therefore let my Houſewife be perſwaded, that a warme dry houſe before deſcribed, is the chiefeſt helpe ſhe can make her Bees againſt this, and many more miſchiefes. Many vſe againſt cold in Winter, to ſtop vp their hiue cloſe, and ſome ſet them in houſes, perſwading themſelues, that thereby they relieue their Bees. Firſt, toſſing and mouing is hurtfull. Secondly, in houſes, going, knocking, and ſhaking is noyſome. Thirdly, too much heate in an houſe is vnnaturall for them: but laſtly, and eſpecially, Bees cannot abide to be ſtopt cloſe vp. For at euery warme ſeaſon of the Sunne they reuiue, and liuing eate, and eating muſt needs purge abroad, (in her houſe) the cleanly Bee will not purge her

her ſelfe. Iudge you what it is for any liuing creature, not to disburden nature. Being ſhut vp in calme ſeaſons, lay your eare to the Hiue, and you ſhall heare them yarme and yell, as ſo many hungred priſoners. Therefore impound not your Bees, ſo profitable and free a creature.

Taking of Bees. Let none ſtand aboue three yeares, elſe the combes will be blacke and knotty, your honey will be thinne and vncleanly: and if any caſt after three yeares, it is ſuch as haue ſwarmes, and old Bees kept all together, which is great loſſe. Smoaking with ragges, rozen, or brimſtone, many vſe: ſome vſe drowning in a tub of cleane water, and the water well brewde, will be good botchet. Drawe out your ſpelkes immediatly with a paire of pinchars, leſt the wood grow ſoft and ſwell, and ſo will not be drawne, then muſt you cut your Hiue.

Straining Honey. Let no fire come neere your hony, for fire ſofteneth the waxe and droſſe, and makes them runne with the hony. Fire ſoftneth, weakeneth, and hindereth hony for purging. Breake your combes ſmall (when the dead empty combes are parted from the loaden combes into a ſiue, borne ouer a great bowle, or veſſell, with two ſtaues, and ſo let it runne two or three dayes. The ſooner you tunne it vp, the better will it purge. Runne your ſwarme honey by it ſelfe, and that ſhall be your beſt. The elder your hiues are, the worſe is your honey.

Veſſels. Vſuall veſſels are of clay, but after wood be ſatiated with honey (for it will leake at firſt: for honey is maruellouſly ſearching, the thicke, and therefore vertuous.) I vſe it rather becauſe it will not breake ſo ſoone, with fals, froſts, or otherwiſe, and greater veſ-

ſels

sels of clay will hardly last.

When you vse your honey, with a spoone take off the skin which it hath put vp.

And it is worth the regard, that bees thus vsed, if you haue but forty stockes, shall yeeld you more commodity cleerely than forty acres of ground.

And thus much may suffice, to make
good Housewiues loue and haue
good Gardens and Bees.

Deo Laus.

FINIS.

The

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A MOST PROFITABLE NEWE TREATISE,

From approued experience of the art *of propagating Plants; by* Simon Harward.

CHAP. I.

The Art of propagating Plants.

THere are foure ſorts of Planting, or propageting, as in laying of ſhootes or little branches, whiles they are yet tender in ſome pit made at their foote, as ſhall be ſayd hereafter, or vpon a little ladder or Basket of earth, tyed to the bottome of the branch, or in-boaring a Willow thorow, and putting the branch of the tree into the hole, as ſhall be fully declared in the Chapter of Grafting. 1.

There are likewiſe ſeaſons to propagate in; but the beſt is in the Spring, and *March*, when the trees are

in

in the Flower, and doe begin to grow lusty. The young planted Siens or little Grafts must be propagated in the beginning of Winter, a foot deepe in the earth, and good manure mingled amongst the earth, which you shall cast forth of the pit, wherein you meane to propagate it, to tumble it in vpon it againe. In like manner your superfluous Siens, or little Plants must be cut close by the earth, when as they grow about some small Impe, which we meane to propagate, for they would doe nothing but rot. For to propagate, you must digge the earth round about the tree, that so your rootes may be laid in a manner halfe bare. Afterward draw into length the pit on that side where you meane to propagate, and according as you perceiue that the roots will
2. be best able to yeeld, and be gouerned in the same pit, to vse them, and that with all gentlenesse, and stop close your Siens, in such sort, as that the wreath which is in the place where it is grafted, may be a little lower then the Siens of the new Wood, growing out of the earth, euen so high as it possible may be. If the trees that you would propagate be somewhat thicke, and thereby the harder to ply, and somewhat stiffe to lay in the pit: then you may wet the stocke almost to the midst, betwixt the roote and the wreathing place, and so with gentle handling of it, bow downe into the pit the wood which the grafts haue put forth, and that in as round a compasse as you can, keeping you from breaking of it: afterward lay ouer the cut, with gummed Waxe, or with grauell and sand.

CHAP

Chap. 2.
Grafting in the Barke.

GRafting in the Barke, is vſed from mid-*Auguſt*, to the beginning of Winter, and alſo when the Weſterne winde beginneth to blow, being from the 7. of *February*, vnto 11. of *Iune*. But there muſt care be had, not to graffe in the barke in any rainy ſeaſon, becauſe it would waſh away the matter of ioyning the one and the other together, and ſo hinder it.

Grafting in the budde, is vſed in the Summer time, from the end of *May*, vntill *Auguſt*, as being the time when the trees are ſtrong and luſty, and full of ſap and leaues. To wit, in a hot Countrey, from the midſt of *Iune*, vnto the midſt of *Iuly*: but cold Countries, to the midſt of *Auguſt*, after ſome ſmall ſhowres of Raine.

If the Summer be ſo exceeding dry, as that ſome trees doe withhold their ſap, you muſt waite the time till it doe returne.

Graft from the full of the Moone, vntill the end of the old.

You may graft in a Cleft, without hauing regard to the Raine, for the ſap will keepe it off.

You may graft from mid-*Auguſt*, to the beginning of *Nouember*: Cowes dung with ſtraw doth mightily preſerue the graft.

It is better to graft in the euening, then the morning.

The furniture and tooles of a Grafter, are a Basket to lay his Grafts in, Clay, Gravell, Sand, or ſtrong Earth, to draw ouer the plants clouen: Moſſe, Woollen

Woollen clothes, barkes of Willow to ioyne to the late things and earth before ſpoken, and to keepe them faſt: Oziers to tye againe vpon the barke, to keepe them firme and faſt: gummed Wax, to dreſſe and couer the ends and tops of the grafts newly cut, that ſo the raine and cold may not hurt them, neither yet the ſap riſing from belowe, be conſtrained to returne againe vnto the ſhootes. A little Sawe or hand-Sawe, to ſawe off the ſtocke of the plants, a little Knife or Pen-knife to graffe, and to cut and ſharpen the grafts, that ſo the barke may not pill nor be broken; which often commeth to paſſe when the graft is full of ſap. You ſhall cut the graffe ſo long, as that it may fill the cliffe of the plant, and therewithall it muſt be left thicker on the barke-ſide, that ſo it may fill vp both the cliffe and other inciſions, as any need is to be made, which muſt be alwaies well ground, well burniſhed without all ruſt. Two wedges, the one broad for thicke trees, the other narrow for leſſe and tender trees, both of them of box, or ſome other hard and ſmooth wood, or ſteele, or of very hard iron, that ſo they may need leſſe labour in making them ſharpe.

A little hand-Bill to ſet the plants at more liberty, by cutting off ſuperfluous boughs, helu'd of Iuory, Box, or Brazell.

CHAP.

Chap. 3.
Grafting in the cleft.



He manner of grafting in a cleft, to wit, the ſtocke being clou'd, is proper not onely to trees, which are as great as a mans legs or armes, but alſo to greater. It is true that in as much as the trees cannot eaſily be cloued in their ſtocke, that therefore it is expedient to make inciſion in ſome one of their branches, and not in the maine body, as we ſee to be practiſed in great Apple trees, and great Peare-trees, and as we haue already declared heretofore.

To graft in the cleft, you muſt make choiſe of a graft that is full of ſap and iuyce, but it muſt not bee, but till from after *Ianuary* vntill *March*: And you muſt not thus graft in any tree that is already budded, becauſe a great part of the iuyce and ſap would be already mounted vpon high, and riſen to the top, and there diſperſed and ſcattered hither and thither, into euery ſprigge and twigge, and vſe nothing welcome to the graft.

You muſt likewiſe be reſolued not to gather your graft the day you graft in, but ten or twelue dayes before: for otherwiſe, if you graft it new gathered, it will not be able eaſily to incorporate it ſelfe with the body and ſtocke, where it ſhall be grafted; becauſe that ſome part of it will dry, and by this meanes will be a hinderance in the ſtocke to the riſing vp of the ſap, which it ſhould communicate vnto the graft, for the making of it to put forth. and whereas this dried part will fall a crumbling, and breaking thorow his rottenneſſe, it will cauſe to remaine a concauity, or hollow place in the ſtock, which will be an occaſion of a like inconuenience

to befall the graft. Moreouer, the graft being new and tender, might eaſily be hurt of the bands, which are of neceſſity to be tyed about the Stocke, to keepe the graft firme and faſt. And you muſt further ſee, that your Plant was not of late remoued, but that it haue already fully taken root.

When you are minded to graft many grafts into one cleft, you muſt ſee that they be cut in the end all alike.

7. See that the grafts be of one length, or not much differing, and it is enough, that they haue three or foure eylets without the wrench when the Plant is once ſawed, and lopped of all his ſmall Siens and ſhootes round about, as alſo implyed of all his branches, if it haue many: then you muſt leaue but two at the moſt, before you come to the cleauing of it: then put to your little Saw, or your knife, or other edged toole that is very ſharpe, cleaue it quite thorow the middeſt, in gentle and ſoft ſort: Firſt, tying the Stocke very ſure, that ſo it may not cleaue further then is need: and then put to your Wedges into the cloft vntill ſuch time as you haue ſet in your grafts, and in cleauing of it, hold the knife with the one hand, and the tree with the other, to helpe to keepe it from cleauing too farre. Afterwards put in your wedge of Boxe or Brazill, or bone at the ſmall end, that ſo you may the better take it out againe, when you haue ſet in your grafts.

8. If the Stocke be clouen, or the Barke looſed too much from the wood: then cleaue it downe lower, and ſet your grafts in, and looke that their inciſion bee fit, and very iuſtly anſwerable to the cleft, and that the two ſaps, firſt, of the Plant and graft, be right and euen ſet one againſt the other, and ſo handſomely fitted, as that

that there may not be the leaſt appearance of any cut or cleft. For if they doe not thus iumpe one with another, they will neuer take one with another, becauſe they cannot worke their ſeeming matter, and as it were cartilaguous glue in conuenient ſort or manner, to the gluing of their ioynts together. You muſt likewiſe beware, not to make your cleft ouerthwart the pitch, but ſomewhat aſide.

The barke of your Plant being thicker then that of your Graft, you muſt ſet the graft ſo much the more outwardly in the cleft, that ſo the two ſaps may in any caſe be ioyned, and ſet right the one with the other but the rinde of the Plant muſt be ſomewhat more out, then that of the grafts on the clouen ſide.

9. To the end that you may not faile of this worke of imping, you muſt principally take heed, not to ouer-cleaue the Stockes of your Trees. But before you widen the cleft of your wedges, binde, and goe about the Stocke with two or three turnes, and that with an Ozier, cloſe drawne together, vnderneath the ſame place, where you would haue your cleft to end, that ſo your Stocke cleaue not too farre, which is a very vſuall cauſe of the miſcarrying of grafts, in aſmuch as hereby the cleft ſtandeth ſo wide and open, as that it cannot be ſhut, and ſo not grow together againe; but in the meane time ſpendeth it ſelfe, and breatheth out all his life in that place, which is the cauſe that the Stocke and the Graft are both ſpilt. And this falleth out moſt often in Plum-trees, & branches of trees. You muſt be careful ſo to ioyne the rinds of your grafts, and Plants, that nothing may continue open, to the end that the wind, moiſture of the clay or raine, running vpon the grafted place, do not get in: when the plant cleueth very

ſtraight, there is not any danger nor hardneſſe in ſlo-
10. ping downe the Graft. If you leaue it ſomewhat vneuen, or rough in ſome places, ſo that the ſaps both of the one and of the other may the better grow, and be glued together, when your grafts are once well ioyned to your Plants, draw out your wedges very ſoftly, leſt you diſplace them againe, you may leaue there within the cleft ſome ſmall end of a wedge of greene wood, cutting it very cloſe with the head of the Stocke: Some caſt gue into the cleft, ſome Sugar, and ſome gummed Waxe.

I the Stocke of the Plant whereupon you intend to graft, be not ſo thicke as your graft, you ſhall graft it
1. after the faſhion of a Goates foot, make a cleft in the Stocke of the Plant, not direct, but byas & that ſmooth and euen, not rough: then apply and make faſt thereto, the graft withall his Barke on, and anſwering to the barke of the Plant. This being done, couer the place with the fat earth and moſſe of the Woods tyed together with a ſtrong band: ſticke a pole of Wood by it, to keepe it ſtedfaſt.

Chap. 4.

Grafting like a Scutcheon.

IN grafting after the manner of a Scutcheon, you ſhall not vary nor differ much from that of the Flute or Pipe, ſaue only that the Scutcheon-like graft, hauing one eyelet, as the other hath yet the wood of the tree whereupon the Scutcheon-like graft is grafted, hath not any knob, or budde, as the wood whereupon the graft is grafted,

ted, after the manner of a pipe.

12. In Summer when the trees are well repleniſhed with ſap, and that their new Siens begin to grow ſomewhat hard, you ſhall take a ſhoote at the end of the chiefe branches of ſome noble and reclaimed tree, whereof you would faine haue ſome fruit, and not many of his old ſtore or wood, and from thence raiſe a good eylet, the tayle and all thereof to make your graft. But when you chooſe, take the thickeſt, and groſſeſt, diuide the tayle in the middeſt, before you doe any thing elſe, caſting away the leafe (if it be not a Peare plum-tree: for that would haue two or three leaues) without remouing any more of the ſaid tayle: afterward with the point of a ſharpe knife, cut off the Barke of the ſaid ſhoote, the patterne of a ſhield, of the length of a nayle.

13. In which there is onely one eylet higher then the middeſt together, with the reſidue of the tayle which you left behinde: and for the lifting vp of the ſaid graft in Scutcheon, after that you haue cut the barke of the ſhoote round about, without cutting of the wood within, you muſt take it gently with your thumbe, and in putting it away you muſt preſſe vpon the wood from which you pull it, that ſo you may bring the bud and all away together with the Scutcheon: for if you leaue it behinde with the wood, then were the Scutcheon nothing worth. You ſhall finde out if the Scutcheon be nothing worth, if looking within when it is pulled away from the wood of the ſame ſute, you finde it to haue a hole within, but more manifeſtly, if the bud doe ſtay behind in the Wood, which ought to haue beene in the Scutcheon.

Thus your Scutcheon being well raiſed and taken

14. off, hold it a little by the tayle betwixt your lips, without wetting of it, euen vntil you haue cut the Barke of the tree where you would graft it, and looke that it be cut without any wounding of the wood within, after the manner of a crutch, but somewhat longer then the Scutcheon that you haue to set in it, and in no place cutting the wood within; after you haue made incision, you must open it, and make it gape wide on both sides, but in all manner of gentle handling, and that with little Sizers of bone, and separating the wood and the barke a little within, euen so much as your Scutcheon is in length and breadth: you must take heed that in doing hereof, you do not hurt the bark.

This done take your Scutcheon by the end, and your tayle which you haue left remaining, and put in-
15. to your incision made in your tree, lifting vp softly your two sides of the incision with your said Sizers of bone, and cause the said Scutcheon to ioyne, and lye as close as may be, with the wood of the tree, being cut, as aforesaid, in wayeing a little vpon the end of your rinde: so cut and let the vpper part of your Scutcheon lye close vnto the vpper end of your incision, or barke of your said tree: afterward binde your Scutcheon about with a band of Hempe, as thicke as a pen of a quill, more or lesse, according as your tree is small or great, taking the same Hempe in the middest, to the end that either part of it may performe a like seruice; and wreathing and binding of the said Scutcheon into the incision of a tree, and it must not be tyed too strait, for that would keepe it from taking the ioyning of the one sap to the other, being hindred thereby, and neither the Scutcheon, nor yet the Hempe must be moist or wet: and the more iust-

ly

ly to binde them together, begin at the backe ſide of the Tree, right ouer againſt the middeſt of the inciſion, and from thence come forward to ioyne them before, aboue the eylet and tayle of the Scutcheon, croſſing your band of Hempe, ſo oft as the two ends meet, and from thence returning backe againe, come about and tye it likewiſe vnderneath the eylets: and thus caſt about your band ſtill backward and forward, vntill the whole cleft of the inciſion be couered aboue and below with the ſaid Hempe, the eylet onely excepted, and his tayle which muſt not be couered at all; his tayle will fall away one part after another, and that ſhortly after the ingrafting, if ſo be the Scutcheon will take. Leaue your trees and Scutcheons thus bound, for the ſpace of one moneth, and the thicker, a great deale longer time. Afterward looke them ouer, and if you perceiue them to grow together, vntye them, or at the leaſt wiſe cut the Hempe behinde them, and leaue them vncouered. Cut alſo your branch two or three fingers aboue that, ſo the impe may proſper the better: and thus let them remaine till after Winter, about the moneth of *March*, and *Aprill*. 17.

If you perceiue that your budde of your Scutcheon doe ſwell and come forward: then cut off the tree three fingers or thereabouts, aboue the Scutcheon: for if it be cut off too neere the Scutcheon, at ſuch time as it putteth forth his firſt bloſſome, it would be a meanes greatly to hinder the flowring of it, and cauſe alſo that it ſhould not thriue and proſper ſo well after that one yeere is paſt, and that the ſcote beginneth to be ſtrong: beginning to put forth the ſecond bud and bloſſome, you muſt goe forward to cut off 18.

in byas-wiſe the three fingers in the top of the tree, which you left there, when you cut it in the yeere going before, as hath beene ſaid.

19. When your ſhoote ſhall haue put foorth a great deale of length, you muſt ſticke downe there, euen hard ioyned thereunto, little ſtakes, tying them together very gently and eaſily; and theſe ſhall ſtay your ſhootes and prop them vp, letting the winde from doing any harme vnto them. Thus you may graft white Roſes in red, and red in white. Thus you may graft two or three Scutcheons: prouided that they be all of one ſide: for they will not be ſet equally together in height becauſe then they would bee all ſtaruelings, neither would they be directly one o-

20. uer another; for the lower would ſtay the riſing vp of the ſap of the tree, and ſo thoſe aboue ſhould conſume in penury, and vndergoe the aforeſaid inconuenience. You muſt note, that the Scutcheon which is gathered from the Sien of a tree whoſe fruite is ſowre, muſt be cut in ſquare forme, and not in the plaine faſhion of a Scutcheon. It is ordinary to graffe the ſweet Quince tree, baſtard Peach-tree, Apricock-tree, Iuiube-tree, ſowre Cherry-treee, ſweet Cherry-tree, and Cheſtnut-tree, after this faſhion, howbeit they might be grafted in the cleft more eaſily, and more profitably; although diuers be of contrary opinion, as thus beſt: Take the grafts of ſweet Quince tree, and baſtard Peach-tree, of the faireſt wood, and beſt fed that you can finde, growing vpon the wood of two

21. yeeres old, becauſe the wood is not ſo firme nor ſolid as the others: and you ſhall graffe them vpon ſmall Plum-tree ſtocks, being of the thicknes of ones thumbe; theſe you ſhall cut after the faſhion of a Goats foot: you

ſhall

ſhall not goe about to make the cleft of any more ſides then one, being about a foot high from the ground; you muſt open it with your ſmall wedge: and being thus grafted, it will ſeeme to you that it is open but of one ſide; afterward you ſhall wrap it vp with a little Moſſe, putting thereto ſome gummed Wax, or clay, and binde it vp with Oziers to keepe it ſurer, becauſe the ſtocke is not ſtrong enough it ſelfe to hold it, and you ſhall furniſh it euery manner of way as others are dealt withall: this is moſt profitable.

The time of grafting.

All moneths are good to graft in, (the moneth of *October* and *Nouember* onely excepted) But commonly, graft at that time of the Winter, when ſap beginneth to ariſe.

In a cold Countrey graft later, and in a warme Countrey earlier.

The beſt time generall is from the firſt of *February*, vntill the firſt of *May*.

The grafts muſt alwaies be gathered, in the old of the Moone.

For grafts chooſe ſhootes of a yeere old, or at the furthermoſt two yeeres old.

If you muſt carry grafts farre, pricke them into a Turnep newly gathered, or lay earth about the ends.

If you ſet ſtones of Plummes, Almonds, Nuts, or Peaches: Firſt let them lye a little in the Sunne, and then ſteepe them in Milke or Water, three or foure dayes before you put them into the earth.

Dry the kernels of Pippins, and ſow them in the end of *Nouember*.

The

The ſtone of a Plum-tree muſt be ſet a foot deepe in *Nouember*, or *February*.

The Date-ſtone muſt be ſet the great end downwards, two cubits deepe in the earth, in a place enriched with dung.

The Peach-ſtone would be ſet preſently after the Fruit is eaten, ſome quantity of the fleſh of the Peach remaining about the ſtone.

If you will haue it to be excellent, graft it afterward vpon an Almond tree.

The little Siens of Cherry-trees, grown thicke with haire, rots, and thoſe alſo which doe grow vp from the rootes of the great Cherry-trees, being remoued, doe grow better and ſooner then they which come of ſtones: but they muſt be remoued and planted while they are but two or three yeeres old, the branches muſt be lopped.

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THE HVSBAND MANS FRVITEFVLL ORCHARD.

For the true ordering of all ſorts of *Fruits in their due ſeaſons; and how double* increaſe commeth by care in gathering *yeere after yeare: as alſo the beſt way* of carriage by land or by water: *With their preſervation for* longeſt continuance.

OF all ſtone Fruit, Cherries are the Cherries.
firſt to be gathered: of which, though we reckon foure ſorts; *Engliſh, Flemiſh, Gaſcoyne* and Blacke, yet are they reduced to two, the early, and the ordinary: the earely are thoſe whoſe grafts came firſt from *France* and *Flanders*, and are now ripe with vs in *May*: the ordinary is our owne naturall Cherry, and is not ripe before *Iune*; they muſt be carefully kept from Birds, either with nets,

nets, noiſe, or other induſtry.

Gathering of Cheries.

They are not all ripe at once, nor may be gathered at once, therefore with a light Ladder, made to ſtand of it ſelfe, without hurting the boughes, mount to the tree, and with a gathering hooke, gather thoſe which be full ripe, and put them into your Cherry-pot, or Kybzey hanging by your ſide, or vpon any bough you pleaſe, and be ſure to breake no ſtalke, but that the cherry hangs by; and pull them gently, lay them downe tenderly, and handle them as little as you can.

To carry Cherries.

For the conueyance or portage of Cherries, they are beſt to be carried in broad Baskets like ſiues, with ſmooth yeelding bottomes, onely two broad laths going along the bottome: and if you doe traſport them by ſhip, or boate, let not the ſiues be fil'd to the top, leſt ſetting one vpon another, you bruiſe and hurt the Cherries: if you carry by horſe-backe, then panniers well lined with Fearne, and packt full and cloſe is the beſt and ſafeſt way.

Other ſtone-fruit.

Now for the gathering of all other ſtone-fruite, as Nertarines, Apricockes, Peaches, Peare-plumbes, Damſons, Bullas, and ſuch like, although in their ſeuerall kinds, they ſeeme not to be ripe at once on one tree: yet when any is ready to drop from the tree, though the other ſeeme hard, yet they may alſo be gathered, for they haue receiued the full ſubſtance the tree can giue them; and therefore the day being faire, and the dew drawne away; ſet vp your Ladder, and as you gathered your Cherries, ſo gather them: onely in the bottomes of your large ſiues, where you part them, you ſhall lay Nettles, and likewiſe in the top, for that will ripen thoſe that are moſt vnready.

In gathering of Peares are three things obſerued;

to

to gather for expence, for transportation, or to sell to the Apothecary. If for expence, and your owne vse, then gather them as soone as they change, and are as it were halfe ripe, and no more but those which are changed, letting the rest hang till they change also: for thus they will ripen kindely, and not rot so soone, as if they were full ripe at the gathering. But if your Peares be to be transported farre either by Land or Water, then pull one from the tree, and cut it in the middest, and if you finde it hollow about the choare, and the kernell a large space to lye in: although no Peare be ready to drop from the tree, yet then they may be gathered, and then laying them on a heape one vpon another, as of necessity they must be for transportation, they will ripen of themselues, and eate kindly: but gathered before, they will wither, shrinke and eate rough, losing not onely their taste, but beauty. Gathering of Peares.

Now for the manner of gathering; albeit some climb into the trees by the boughes, and some by Ladder, yet both is amisse: the best way is with the Ladder before spoken of, which standeth of it selfe, with a basket and a line, which being full, you must gently let downe, and keeping the string still in your hand, being emptied, draw it vp againe, and so finish your labour, without troubling your selfe, or hurting the tree.

Now touching the gathering of Apples, it is to be done according to the ripening of the fruite, your Summer apples first, and the Winter after. Gathering of Apples.

For Summer fruit, when it is ripe, some will drop from the tree, and birds will be picking at them: But if you cut one of the greenest, and finde it as was

shew'd

ſhew'd you before of the Peare: then you may gather them, and in the houſe they will come to their ripeneſſe and perfection. For your Winter fruit, you ſhall know the ripeneſſe by the obſeruation before ſhewed; but it muſt be gathered in a faire, Sunny, and dry day, in the waine of the Moone, and no Wind in the Eaſt, alſo after the deaw is gone away: for the leaſt wet or moyſture will make them ſubiect to rot and mil dew: alſo you muſt haue an apron to gather in, and to empty into the great baskets, and a hooke to draw the boughes vnto you, which you cannot reach with your hands at eaſe: the apron is to be an Ell euery way, loopt vp to your girdle, ſo as it may ſerue for either hand without any trouble: and when it is full, vnlooſe one of your loopes, and empty it gently into the great basket, for in throwing them downe roughly, their owne ſtalkes may pricke them; and thoſe which are prickt, will euer rot. Againe, you muſt gather your fruit cleane without leaues or bunts, becauſe the one hurts the tree, for euery bunt would be a ſtalke for fruit to grow vpon: the other hurts the fruit by bruiſing, and pricking it as it is layd together, and there is nothing ſooner rotteth fruite, then the greene and withered leaues lying amongſt them; neither muſt you gather them without any ſtalke at all: for ſuch fruit will begin to rot where the ſtalke ſtood.

To vſe the fallings.

For ſuch fruit as falleth from the trees, and are not gathered, they muſt not be layd with the gathered fruit: and of fallings there are two ſorts; one that fals through ripeneſſe, and they are beſt, and may be kept to bake or roaſt: the other windfals, and before they are ripe; and they muſt be ſpent as they are gathered, or elſe they will wither and come to nothing: and the re-

therefore it is not good by any meanes to beate downe fruit with Poales, or to carrie them in Carts loose and iogging, or in sacks where they may be bruised.

When your fruit is gathered, you shall lay them in deepe Baskets of Wicker, which shall containe foure or sixe bushels, and so betweene two men, carry them to your Apple-Loft, and in shooting or laying them downe, be very carefull that it be done with all gentlenesse, and leasure, laying euery sort of fruit seuerall by it selfe: but if there be want of roome hauing so many sorts that you cannot lay them seuerally, then such some fruite as is neereſt in taste and colour, and of Winter fruit, such as will taste alike, may if need require, be laid together, and in time you may separate them, as shall bee shewed hereafter. But if your fruit be gathered faire from your Apple-Loft, then must the bottomes of your Baskets be lined with greene Ferne, and draw the stuborne ends of the same through the Basket, that none but the soft leafe may touch the fruit, and likewise couer the tops of the Baskets with Ferne also, and draw small cord ouer it, that the Ferne may not fall away, nor the fruit scatter out, or iogge vp and downe: and thus you may carry fruite by Land or by Water, by Boat, or Cart, as farre as you please: and the Ferne doth not onely keepe them from bruising, but also ripens them, especially Peares. When your fruit is brought to your Apple-Loft or store house, if you finde them not ripened enough, then lay them in thicker heapes vpon Fearne, and couer them with Ferne also: and when they are neere ripe, then vncouer them, and make the heapes thinner, so as the ayre may passe thorow them: and if you

Carriage of fruit.

will not haſten the ripening of them, then lay them on the boords without any Fearne at all. Now for Winter, or long laſting Peares, they may be packt either in Ferne or Straw, and carried whither you pleaſe; and being come to the iourneys end muſt be laid vpon ſweet ſtraw; but beware the roome be not too warme, nor windie, and too cold, for both are hurtfull: but in a temperate place, where they may haue ayre, but not too much.

Of Wardens. Wardens are to be gathered, carried, packt, and laid as Winter Peares are.

Of Medlers. Medlers are to be gathered about *Michaelmas*, after a froſt hath toucht them; at which time they are in their full growth, and will then be dropping from the tree, but neuer ripe vpon the tree. When they are gathered, they muſt be laid in a basket, ſiue, barrell, or any ſuch caske, and wrapt about with woollen cloths, vnder, ouer, and on all ſides, and alſo ſome waight laid vpon them, with a boord betweene: for except they be brought into a heat, they will neuer ripen kindly or taſte well.

Now when they haue laine till you thinke ſome of them be ripe, the ripeſt, ſtill as they ripen, muſt be taken from the reſt: therefore powre them out into another ſiue or basket leaſurely, that ſo you may well finde them that be ripeſt, letting the hard one fall into the other basket, and thoſe which be ripe laid aſide: the other that be halfe ripe, ſeuer alſo into a third ſiue or basket: for if the ripe and halfe ripe be kept together, the one will be mouldy, before the other be ripe: And thus doe, till all be throughly ripe.

Of Quinces. Quinces ſhould not be laid with other fruite; for the ſent is offenſiue both to other fruite, and to thoſe that keepe the fruit or come amongſt them: therefore lay

lay them by themſelues vpon ſweet ſtrawe, where they may haue ayre enough: they muſt be packt like Medlers, and gathered with Medlers.

To packe Apples.

Apples muſt be packt in Wheat or Rye-ſtraw, and in maunds or baskets lyned with the ſame, and being gently handled, will ripen with ſuch packing and lying together. If ſeuerall ſorts of apples be packt in one maund or basket, then betweene euery ſort, lay ſweet ſtrawe of a pretty thickneſſe.

Emptying and laying Apples.

Apples muſt not be powred out, but with care and leaſure: firſt, the ſtraw pickt cleane from them, and then gently take out euery ſeuerall ſort, and place them by themſelues: but if for want of roome you mixe the ſorts together, then lay thoſe together that are of equall laſting; but if they haue all one taſte, then they need no ſeparation. Apples that are not of like colours ſhould not be laid together, and if any ſuch be mingled, let it be amended, and thoſe which are firſt ripe, let them be firſt ſpent; and to that end, lay thoſe apples together, that are of one time of ripening: and thus you muſt vſe Pippins alſo, yet will they endure bruiſes better then other fruit, and whilſt they are greene will heale one another.

Difference in Fruit.

Pippins though they grow of one tree, and in one ground, yet ſome will laſt better then other ſome, and ſome will bee bigger then others of the ſame kinde, according as they haue more or leſſe of the Sunne, or more or leſſe of the droppings of the trees or vpper branches: therefore let euery one make moſt of that fruite which is faireſt, and longeſt laſting. Againe, the largeneſſe and goodneſſe of fruite conſiſts in the age of the tree: for as the tree increaſeth, ſo the fruite increaſeth in bigneſſe, beauty, taſte, and firmneſſe: and otherwiſe, as it decreaſeth.

Transporting fruit by water.

If you be to transport your fruit farre by water, then prouide some dry hogges-heads or barrells, and packe in your apples, one by one with your hand, that no empty place may be left, to occasion sogging; and you must line your vessell at both ends with fine sweet straw; but not the sides, to auoid heat: and you must bore a dozen holes at either end, to receiue ayre so much the better; and by no meanes let them take wet. Some vse, that transport beyond seas, to shut the fruite vnder hatches vpon straw: but it is not so good, if caske may be gotten.

When not to transport fruit.

It is not good to transport fruite in *March*, when the wind blowes bitterly, nor in frosty weather, neither in the extreme heate of Summer.

To conuay small store of fruit.

If the quantity be small you would carry, then you may carry them in Dossers or Panniers, prouided they be euer filled close, and that Cherries and Peares be lined with greene Fearne, and Apples with sweete straw; and that, but at the bottomes and tops, not on the sides.

Roomes for fruite.

Winter fruite must lye neither too hot, nor too cold; too close, nor too open: for all are offensiue. A lowe roome or Cellar that is sweet, and either boorded or paued, and not too close, is good, from *Christmas* till *March*: and roomes that are seeled ouer head, and from the ground, are good from *March* till *May*: then the Cellar againe, from *May* till *Michaelmas*. The apple loft would be seeled or boorded, which if it want, take the longest Rye-straw, and raise it against the walles, to make a fence as high as the fruite lyeth; and let it be no thicker then to keepe the fruite from the wall, which being moyst, may doe hurt, or if not moist, then the dust is offensiue.

There

There are ſome fruite which will laſt but vntill *All-hallontide*: they muſt be laid by themſelues; then thoſe which will laſt till *Chriſtmas*, by themſelues: then thoſe which will laſt till it be *Candlemas*, by themſelues: thoſe that will laſt till *Shroue-tide*, by themſelues: and Pippins, Apple-Iohns, Peare-maines, and Winter-Ruſſettings, which will laſt all the yeere by themſelues. Sorting of Fruit.

Now if you ſpy any rotten fruite in your heapes, pick them out, and with a Trey for the purpoſe, ſee you turne the heapes ouer, and leaue not a tainted Apple in them; diuiding the hardeſt by themſelues, and the broken skinned by themſelues to be firſt ſpent, and the rotten ones to be caſt away; and euer as you turne them, and picke them, vnder-lay them with freſh ſtraw: thus ſhall you keepe them ſafe for your vſe, which otherwiſe would rot ſuddenly.

Pippins, Iohn Apples, Peare-maines, and ſuch like long laſting fruit, need not to be turned till the weeke before *Chriſtmas*, vnleſſe they be mixt with other of a riper kind, or that the fallings be alſo with them, or much of the firſt ſtraw left amongſt them: the next time of turning is at *Shroue-tide*, and after that, once a moneth till *Whitſon-tide*; and after that, once a fortnight; and euer in the turning, lay your heapes lower and lower, and your ſtraw very thinne: prouided you doe none of this labour in any great froſt, except it be in a cloſe Celler. At euery thawe, all fruit is moyſt, and then they muſt not be touched: neither in rainy weather, for then they will be danke alſo: and therefore at ſuch ſeaſons it is good to ſet open your windowes, and doores, that the ayre may haue free paſſage to dry them, as at nine of the Times of ſtirring fruit.

clocke in the fore-noone in Winter; and at five in the fore-noone, and at eight at night in Summer: onely in *March*, open not your windowes at all.

All lasting fruite, after the middest of *May*, beginne to wither, because then they waxe dry, and the moisture gone, which made them looke plumpe: they must needes wither, and be smaller; and nature decaying, they must needes rot.

And thus much touching the ordering of fruites.

FINIS.



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